No. 3 Orig.

Office Supreme Court
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JAMES H. McKENNEY,
Clerk

Answer of Defendant.

SUPREME COURT

Filed Nov. 3, 1902.

UNITED STATES

3 Orig'l.

C. T. 1906

THE STATE OF KANSAS,
Complainant,
vs.
THE STATE OF COLORADO,
Defendant.

Original Proceeding No. 3

ANSWER OF DEFENDANT TO BILL OF COMPLAINT.

CHARLES C. POST,
Attorney General of Colorado,
Solicitor for Defendant.

CHARLES S. THOMAS,
LUTHER M. GODDARD,
PLATT ROGERS,
HENRY A. DUBBS,
Of Counsel.

IN THE

SUPREME COURT

OF THE

UNITED STATES

THE STATE OF KANSAS,
Complainant,

vs.

THE STATE OF COLORADO,
Defendant.

Original Proceeding No. 10.

THE ANSWER OF THE STATE OF COLORADO, DEFENDANT, TO THE BILL OF COMPLAINT OF THE STATE OF KANSAS, COMPLAINANT.

This defendant now and at all times hereafter, saving to itself all and all manner of benefit or advantage of exception or otherwise that can or may be had or taken to the many errors, uncertainties and imperfections in the said bill contained for answer thereto or to so much thereof as this defendant is advised it is material or necessary for it to make answer to, answering, saith:

First—This defendant admits that the rise, course, drainage area and general physical characteristics of the Arkansas river and of the valley thereof are as stated in the bill of complaint, but denies that the said river is in fact, or within the laws or departmental rules and regulations of the United States, a navigable stream either within the state of Colorado or the state of Kansas; and denies that any part of the course and flow of said river is beneath the surface of the bottom lands of the valley of said river or that the course and flow thereof is of any greater width than the channel of said river between its banks or that there is any underflow of water in the valley of said river passing from the state of Colorado into the state of Kansas, or that any diminution of the surface flow of said river will materially reduce or affect the water beneath the surface of the lands in said valley in the state of Kansas.

Second—This defendant denies that by reason of the acts complained of the value of the lands in the valley of the Arkansas, in the state of Kansas, has been diminished or the revenue of the state of Kansas arising therefrom, or which should or could arise therefrom, has been in any wise affected.

Third—This defendant has no knowledge of the several conveyances or grants of land in the valley of the Arkansas river, in the state of Kansas, heretofore made by the government of the United States, but avers that as to all conveyances or grants referred to in said bill of complaint, the same were made subject to all rights to water from said river for irrigation purposes theretofore and thereafter to be acquired, and were taken with full knowledge upon the

part of the state of Kansas, and of each and every grantee of said lands, that the waters of said river had been, were being and would be appropriated in the state of Colorado for beneficial uses in the irrigation of land, and that the lands in said valley in the state of Kansas, west of the 97th meridian, and in the state of Colorado, could only be made available for agricultural purposes by the like appropriation and use, and that the government of the United States, as the primary owner of said lands, had assumed that it held the same subject to the appropriation of the waters of said river for irrigation purposes.

Fourth—This defendant denies that the legislature of the state of Colorado has passed laws authorizing or licensing the diversion of water from said Arkansas river, or has granted to any person, firm or corporation the right and authority to make such diversion, but on the contrary, avers that said legislature has at all times recognized the right to make such diversion as one existing independent of any action by it and as one founded on necessity and on the usages and customs of the arid region of the United States, existing prior to the adoption of the Constitution of the state of Colorado and approved and confirmed by the statutes, decisions and rulings of the legislative, judicial and executive departments of the United States, and said legislature has never assumed the power to either grant or restrain the right to divert the waters of the Arkansas river for irrigation or other purposes, or to do more with respect to such diversions than to regulate and control the same by appropriate legislation.

Fifth—This defendant denies that, by the diversion of water from said river in the state of Colorado, no water flows into the state of Kansas during the annual growing season, or that the underflow of said river in the state of Kansas is thereby diminished, or that, if diminished, the bottom lands of said river have become, or will become, injured, ruined or deserted.

Sixth—This defendant admits that a canal was commenced about the year 1890, near Canon City, under state control, but it avers that it was subsequently learned that the ordinary and usual flow of water in the Arkansas river during the irrigating season had theretofore been appropriated by the persons, firms and corporations mentioned in said bill of complaint, and that the construction thereof was thereupon abandoned, and that no water has at any time been diverted from said river into or through said canal by this defendant or at all, and that this defendant has not, at any place along said river, taken or diverted any of the water thereof that would otherwise have flowed into the state of Kansas as part of the usual and ordinary flow of said river, and is not now so doing or intending so to do, nor to construct works whereby the same may be done.

Seventh—This defendant admits that certain reservoirs have been constructed with money appropriated by the legislature of the state of Colorado, in which to store the flood and storm waters of certain tributaries of said Arkansas river, which would otherwise overflow the banks of said tributaries, but said waters so stored have been discharged from said reservoirs into said tributaries during periods of low water for the purpose of equalizing the flow of water in said

tributaries, so that the same might be used for irrigation purposes by private appropriators below; but this defendant has not stored, nor does it intend to store, the ordinary and usual flow of said river or its tributaries, nor to interfere, by storage in reservoirs, now or hereafter to be constructed, with the usual and ordinary flow of said river in the state of Kansas.

Eighth—This defendant denies that when the territory of Kansas was created or the state of Kansas admitted to the Union, the water of said Arkansas river was wholly unappropriated, or that the common law and the riparian rights claimed in said bill of complaint extended over said valley in the state of Kansas, or that the owners of lands along said river were entitled to the unimpeded flow of the water of said river, but, on the contrary, avers that numerous appropriations of said water had been made for irrigation purposes long prior to the creation of said territory, and many more were made prior to the conveyance by the government of the United States of any of the lands lying along or adjacent to said river, and that the necessity and right to divert the water of said river for the reclamation of arid land had, long previous to the creation of said territory, been asserted and exercised by persons in possession of said land, and said necessity and right were thereafter recognized by the legislature of the territory of Kansas, and all lands along said river acquired by the state of Kansas, or by individuals or corporations within the territory or state of Kansas, were taken and held with full knowledge of the necessity of diverting the water of said river for the purpose of reclaiming and making

productive the lands along said river west of the 97th meridian, and that appropriations had been were being, and would be made in that portion of the valley which is now within the jurisdiction of the state of Colorado, and that to the extent of said appropriations the flow of water of said river might, by the usages and customs then prevailing, be lawfully impeded.

Ninth—This defendant denies that, by the taking of water from said river in the state of Colorado in the manner alleged in said bill of complaint, the state of Kansas, or any of its citizens, or the owners of land along said river in the state of Kansas, have been injured in any degree whatever; or that the fertility of the lands, or the use thereof to the fullest extent to which the same is naturally capable of use, have been diminished or impaired; or that the crops, trees and vegetation growing along said river have perished or will perish; or that the wells have become or will become dry; or that the salubrity or healthfulness of said valley, or of the lands adjacent to said river have been or will be impaired.

Tenth—This defendant denies that the right of domestic corporations to appropriate the water of said Arkansas river in the state of Colorado for purposes of irrigation is limited to the period of existence of such corporations, or that a renewal of the corporate existence is necessary to continue such right, but, on the contrary, avers that all appropriations of water, whether made by persons or corporations, are deemed and held to be in perpetuity.

THIS DEFENDANT FOR ITS FIRST SEPARATE AND FURTHER ANSWER TO THE BILL OF COMPLAINT, SAYS:

First—The several appropriations of the waters of the Arkansas river complained of in said bill of complaint were made in accordance with and in reliance upon the doctrine respecting the appropriation of the water of the natural streams for beneficial uses which, by usage and custom prevailed in the arid region of the United States at the time of said appropriations, and which, by the recognition and approval of the United States, has at all times been the law applicable to the public lands in said arid region.

Second—Prior to the acquisition of private title to any of the lands acquired by the general government from France, Mexico and Texas by purchase, cession and annexation, respectively, comprising all the lands now within the jurisdiction of the United States between the Mississippi river and the Pacific coast, said general government caused said lands to be explored and reported upon for the purpose of ascertaining the natural resources and the physical and climatic characteristics of the various portions thereof, and by said explorations and information obtained from time to time, it became known to the United States and the inhabitants thereof that from about the 97th meridian to the coast range of the Pacific slope, the land was an arid waste without timber or useful vegetation, except in the mountains, and that although the soil was rich and fertile, and great deposits of gold, silver and other valuable minerals existed therein, the soil could not be made productive nor the minerals extracted, nor could the

land be inhabited, except by the diversion of water from the natural streams and the application thereof to agricultural and mining uses.

Third—With the earliest settlement in said arid region for agricultural and mining purposes, which was long prior to the opening of said lands to pre-emption and purchase, by necessity, common consent and uniform practice, the doctrine obtained that the waters of all the natural streams flowing through said arid region were subject to diversion and use for agricultural and mining purposes, and that the right to the water thus diverted could be obtained both as against the United States as the owner of the public lands and all grantees of the United States of lands lying along said streams, and that the right of the several appropriators from any given stream should be in the order of diversion and use, the first in time being first in right, and said doctrine has at all times been and now is the customary law of said arid region in respect to the natural streams thereof.

Fourth—Upon the creation and admission of the several territories and states of said arid region, including Kansas, both as a territory and state, they recognized, approved and confirmed, and from thence hitherto have enforced said doctrine, and rights to water by diversion from the streams of said arid region have been maintained as against all claims of riparian rights.

Fifth—The government of the United States, long prior to the sale by it of any of the public lands in the Arkansas valley, recognized and approved said doctrine, and applied the same to said public lands, and renounced all riparian rights which it might have

asserted in contravention of said doctrine, and from thence hitherto has held and disposed of said lands subject to and in accordance with said doctrine, and has at all times encouraged and promoted the diversion and use of the water of the streams in said arid region for agricultural and mining purposes, and by grants of public money has aided in the construction of canals, ditches and reservoirs and other appliances for the diversion, storage and use of water, in the reclamation and cultivation of the public lands.

Sixth—By an act of Congress, approved September 4, 1841, and by subsequent acts relating thereto, the public lands, including the lands in said arid region were declared subject to pre-emption and purchase, and all persons desiring to avail themselves of the provisions of said act were required to make a settlement upon the land in person and to inhabit and improve the same. It was then, and at all times since has been well known to the general government, and particularly to Congress and the executive departments having in charge the administration of said acts, that the provisions thereof in respect to settlement, inhabitancy and improvement could not be complied with in the pre-emption and purchase of arid lands, except by the diversion of the waters of the streams upon the public lands and the application thereof to domestic and irrigation purposes in reliance upon the continuance of the right so to do in accordance with said doctrine of appropriation.

Seventh—By means of the diversion and use of the waters of said natural streams, many million acres of the public lands in said arid region have been

settled upon, inhabited and improved and title thereto obtained from the general government, in the belief that by its action and conduct in the disposition of its public lands, the United States had accepted and applied to said public lands the doctrine of appropriation as hereinbefore set forth; and there has been paid to said general government, on account of said lands so improved by the diversion and use of water in accordance with said doctrine, upwards of twenty million dollars, and all of the lands in the valley of the Arkansas in the state of Colorado, save and except certain Indian lands, were settled upon and patents therefor obtained by proof of the diversion and use of the waters of said Arkansas river in the reclamation and improvement of said lands, said diversions so made being those complained of and sought to be enjoined in and by the bill of complaint herein.

Eighth—The territory of Kansas by its legislature, recognized and approved the said doctrine of appropriation, and in pursuance thereof in 1859 authorized The St. Charles Town Company to divert the waters of the South Platte river and Cherry creek, and The Mountain Company to divert the waters of the Platte river, and The El Paso Town Company to divert the waters of the tributaries of the Arkansas river heading at Pike's peak; and in 1860 authorized The Capital Hydraulic Company to divert for irrigatting purposes all the waters of the South Platte river and Cherry creek. And the state of Kansas, by its legislature has also recognized, approved and adopted said doctrine; an act of said legislature enacted in 1868, authorizing corporations to construct canals di-

verting water for irrigating purposes; an act of the legislature enacted in 1886 providing that the running waters of the state might be appropriated for purposes of irrigation; an act of said legislature enacted in 1891, providing that in all that portion of the state west of the 99th meridian all natural waters, whether standing or running and whether surface or subterranean should be devoted first, to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses; and, second, to other industrial purposes, and might be diverted from natural beds, basins or channels for such purposes and uses; and another act enacted in 1895 providing for the development of the land west of the 98th meridian by irrigation and regulating the distribution of water in the same manner as in Colorado. And in reliance upon the approval and adoption of said doctrine of appropriation by said state of Kansas, about five hundred miles of large canals and ditches have been constructed in Kansas, west of the 97th meridian at a cost aproximating one million dollars and thereby the waters of said Arkansas river have been appropriated and applied to about one hundred and fifty thousand acres of land in the valley of said river, in the state of Kansas.

Ninth—By the act of Congress approved January 29th, 1861, admitting Kansas into the Union, it was specifically provided that the state should never interfere with the primary disposal of the soil within the same by the United States, or with any regulations Congress might find necessary for securing the title in said soil to bona fide purchasers thereof, and that all laws of the United States not locally inapplicable

should have the same force and effect within said state as in other states of the Union.

Tenth—Following the admission into the Union of the state of Kansas, said doctrine of appropriation was further recognized by Congress as the law applicable to the public lands and the natural streams thereof, including those in the state of Kansas, by the following acts:

> An act approved July 26, 1866, by which it was provided that whenever, by priority of possession, rights to the use of water for mining, manufacturing or other purposes, have accrued and are recognized according to local customs, laws and decisions, the owners and possessors shall be maintained and protected in their rights;
>
> An act approved July 9, 1870, in which it was provided that all patents granted, or pre-emptions or homesteads allowed, should be subject to any vested and acquired water rights or rights to ditches and reservoirs used in connection with such water rights;
>
> An act approved March 3, 1877, known as "The Desert Land Act," which declared that all waters of all lakes, reservoirs and others sources of supply upon the public land should remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes, and in and by which it was also provided that by the construction of canals and ditches and the application of said waters to the irriga-

tion of the public lands, the title to said lands might thereby be obtained from the United States;

An act approved March 3, 1891, confirming the rights of way over the public lands in the arid region for canals and reservoirs for irrigation purposes;

An act approved August 18, 1894, providing for the conveyance to the several states in the arid region of such public lands as they might reclaim and irrigate;

An act approved June 17, 1902, authorizing and undertaking the construction of canals, ditches and reservoirs in the arid region, including therein the state of Colorado and the western portion of Kansas, whereby the waters of the public lands might be diverted and used for irrigation purposes, and appropriating for that purpose the proceeds of all moneys received from the sale of public lands in the states of Colorado and Kansas.

Under and by virtue of said act approved March 3, 1877, which was made applicable to lands in Colorado by an act approved March 3, 1891, several thousand acres of land in the Arkansas Valley in the state of Colorado, were reclaimed and irrigated, and the diversions of water for said purposes are in part the diversions complained of in the said bill of complaint.

Eleventh—Said doctrine was further recognized by Congress by the appropriation, on October 2nd, 1888, of $229,000 for the purpose of investigating the extent to which the arid region of the United States

might be redeemed by irrigation and for the segregation of the irrigable lands in such arid region, and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of water for irrigation and also by a further appropriation made on March 2nd, 1889, of $450,000 for the like purpose, all of which moneys were expended in investigating and selecting reservoir sites and in running contour lines for the purpose of aiding and assisting those desiring to appropriate the waters of the natural streams and using the same for irrigating purposes.

Twelfth—The provisions of the Constitution of the state of Colorado set forth and complained of in the bill of complaint, were adopted in harmony with and in pursuance of the policy of the United States in respect to the diversion and use of water in the irrigation of land, and the same do not conflict with or contravene any act of Congress bearing upon said appropriation and use, but, on the contrary, are intended as a constitutional guaranty that the right to divert water for beneficial purposes as authorized and encouraged by the acts of Congress referred to shall never be denied, and said provisions were accepted and approved by the action of Congress in admitting Colorado into the Union, and the several acts of the legislature of Colorado, referred to in said bill of complaint, have been enacted for the purpose of protecting and regulating appropriations made in pursuance of the usages and customs prevailing in the arid region and the rights of appropriation as recognized and confirmed by the acts of Congress referred to.

Thirteenth—All grants and patents of land in the valley of the Arkansas, in the state of Kansas,

were made by the United States, subject to the doctrine of appropriation heretofore set forth, and were accepted by the several grantees thereof with the knowledge that in the sale and disposition of the arid lands of the United States along said Arkansas river west of the 97th meridian, it had been and would be necessary to divert and use the waters of said river in the improvement and cultivation thereof, and said grants and patents of lands in the state of Kansas were made subject to the right of all persons desiring the use of the same for agricultural purposes to appropriate the waters of the Arkansas river, either in Kansas or Colorado, to the full extent of said river.

Fourteenth—And this defendant says that all further diversions of the waters of said Arkansas river, which by said bill of complaint it is sought to restrain, will be made by the general government under and by virtue of said act of Congress, approved June 17, 1902.

THIS DEFENDANT, FOR A SECOND SEPARATE AND FURTHER ANSWER TO THE BILL OF COMPLAINT, SAYS:

First—Many of the appropriations of the waters of the Arkansas river, in the state of Colorado, complained of in said bill of complaint, are made prior to the creation of the territory of Colorado and while said Arkansas valley was a part of the territory of Kansas, and defendant is, therefore, unable to state the times at which said appropriations were made or the amount of water thus diverted from said river.

Second—Following the creation of the territory of Colorado and prior to the year 1865, sixty-eight ditches and canals were constructed, and 615 cubic

feet of water per second of time were thereby diverted from said river and its tributaries, and have at all times since been used in the irrigation of land in said Arkansas valley. From and including the year 1865 to the year 1870, 127 additional ditches and canals were constructed, and 458 cubic feet of water per second of time were thereby diverted from said river, and at all times since have been continuously used in the irrigation of lands in said valley. From and including the year 1870 to the year 1880 268 additional ditches and canals were constructed and 945 cubic feet of water per second of time thereby diverted, and at all times since used in the irrigation of land in said valley. From and including the year 1880 to the year 1890, 250 additional ditches and canals were constructed, and 3,859 cubic feet of water per second of time thereby diverted from said river, and at all times since continuously used when obtainable in the irrigation of land in said valley. All of said ditches and canals have been constructed by individuals and corporations, and the water, when obtainable, has been taken from said river and applied to the reclamation and irrigation of about five hundred thousand acres of land in said valley which, before said diversion and use, was arid and incapable of producing crops.

Third—In the construction of said canals and ditches and the reservoirs connected therewith, many million dollars have been expended, and in the lands irrigated by means of said ditches and canals, and in the improvements thereon and the machinery used in the cultivation thereof more than twenty-five million dollars have been invested. Numerous towns and villages have grown up in said valley in the state of

Colorado, having as a aggregate population more than one hundred thousand, and houses, stores, churches, school houses, factories and public and private buildings for various purposes have been constructed for occupation and use, and actually used in connection with the continued settlement and cultivation of the lands in said valley by the use of the waters of said Arkansas river, the amount so invested aggregating many million dollars.

Fourth—In 1879 and 1881 the legislature of Colorado enacted certain statutes providing for the adjudication of rights to water by apropriation for agricultural uses from the streams in said state, under and by virtue of which irrigation districts were created along the entire length of the Arkansas river in said state, and proceedings were thereupon had in each of said districts in which the owners of ditches and canals taking water from said Arkansas river and its tributaries were parties, and in which the amount of water to which each ditch or canal was entitled was ascertained and decreed. In said proceedings the owners of 713 ditches and canals were parties, and decrees were entered finding the various amounts of water that had been appropriated from said river and its tributaries, and applied to beneficial uses in the irrigation of said lands in said valley, and the dates of said appropriations. In said adjudications many thousand dollars were expended in costs, attorney fees and other necessary expenses in the belief that by said decrees the right of each appropriator, in the order of his appropriation, to the waters of said river had been established as a perpetual property right.

Fifth—The state of Kansas and the inhabitants thereof, well knew that, commencing in said state at

about the 97th meridian, and thence continuing westward to the Rocky Mountains, the land was arid and incapable of being settled upon or cultivated, except by the diversion and use of the waters of the natural streams, and that diversions of the waters of the Arkansas river were being made at the times and in the amounts and for the purpose hereinbefore set forth, and that such diversions were made under a claim of right to the continued use of the waters of said river as against all owners of land in the valley of the Arkansas throughout its entire length, and that the settlement of said valley in the state of Colorado and the expenditure of the amounts hereinbefore stated, and the construction of canals, ditches and reservoirs, and in lands, buildings and improvements, and in houses, stores, factories, and public and private buildings, was made in reliance upon the right to divert the waters of said river and to continue such diversion in perpetuity.

Sixth—Prior to the filing of the bill of complaint herein, neither the state of Kansas, nor the owners of lands in the Arkansas valley in said state, complained of said diversions, nor the right to make or continue the same, nor in any way or manner claimed or alleged any right upon the part of said state, or the owners of land in said valley, to the flow of said river as it had been accustomed to flow prior to the making of said appropriations; but, on the contray, the said state approved the diversion of water from said river and affirmed the right to make the same in the reclamation and irrigation of the lands along said river, by an act of the legislature of said state, enacted in 1886, authorizing and providing for the like diversion and use of

the waters of said river in the state of Kansas, and by a further act, enacted in 1891, declaring that in that portion of the state of Kansas west of the 99th meridian all natural waters, whether running or standing, and whether surface or subterranean, should be devoted, first, to the purposes of irrigation in aid of agriculture; and, second, to other industrial purposes, and that said waters might be diverted from natural beds and channels for such purposes and use, and the owners of land in said valley in said state recognized and approved said appropriations, and the right to continue the same, by themselves constructing about five hundred miles of canals and ditches, and diverting the waters of said river for the irrigation of about one hundred and fifty thousand acres of land, and claimed the right so to do as against all owners of lands along the course of said river in Kansas or elsewhere.

Seventh—The said state of Kansas and the owners of lands in the valley of the Arkansas, in said state, have at all times acquiesced in the appropriation of the waters of the Arkansas river in the state of Colorado, and have waived, surrendered and relinquished any and all riparian rights now claimed by them, and by their delay in the filing of the complaint herein have caused the several appropriators of water from said river in Colorado to make the expenditures hereinbefore mentioned, and the people in said valley to settle upon, improve and cultivate the lands, and to build towns and cities, and for that purpose to expend the sums hereinbefore mentioned; and they are now estopped, by their conduct and delay, from asserting or maintaing any of the rights claimed in the said bill of complaint.

Eighth—The claim of the state of Kansas to the flow of the water of said Arkansas river is not made in behalf of the owners of lands riparian to said river, nor for the purpose of causing said river to flow through said state for the use and benefit of the owners of said riparian lands, but is made and maintained for the sole purpose of securing the flow of the water of said river in the state of Kansas, that the same may be diverted into the several ditches and canals above mentioned, and to such other ditches and canals as may be constructed in conformity with the statutes of said state, as hereinbefore set forth, to be used in the same manner as said waters are now used in the state of Colorado.

THIS DEFENDANT, FOR A THIRD FURTHER AND SEPARATE ANSWER TO THE BILL OF COMPLAINT, SAYS:

First—The Arkansas river leaves the foot hills of the Rocky Mountains at an elevation of about six thousand feet above sea level, and thence flows eastward over an elevated plateau known as the "Great Plains" for several hundred miles, with a practically uniform descent to the east, passing into the state of Kansas at an elevation of 3,350 feet and into the territory of Oklahoma at an elevation of 1,000 feet. Through Colorado and Kansas it has a broad, level bed of sand, seldom entirely covered with water, the ordinary flow running in thin sheets in tortuous and constantly changing channels in the river bed. From the mountains, for five hundred miles eastward, the watershed of said river is naturally barren, treeless and without any vegetation, except the short sparse grass common to the Great Plains. The annual pre-

cipitation of moisture is about fourteen inches, most of which falls in local and violent storms. In its uncultivated condition, the land rapidly sheds the rainfall, discharges it into the river and prevents the saturation of the soil and the formation of springs by which said river and the tributaries along its course might be fed. The tributary streams are usually dry, carrying and discharging water into the river only in case of storms. The sun is seldom obscured, and commencing near the state line between Colorado and Kansas, and continuing eastward for at least two hundred miles, the winds are dry and constant, in the summer season becoming so heated as to burn and destroy the vegetation and to absorb such water as may be in the bed of said river. The waters supplied to said river for about five hundred miles of its course after leaving the mountains are irregular in discharge and constantly varying in quantity, and are not sufficient to cause a steady and permanent flow during any season of the year. The main supply of the river is from the snows and storms in the mountains. As the snow melts only during warm days, this supply is also irregular and uncertain, and the volume of water in the river, therefore, changes daily and even hourly. Long before irrigation was practiced in Colorado, it was observed that as the waters from the mountains flowed eastward, the volume constantly diminished, and this diminution was the more marked as the river passed beyond the area of local storms caused by the mountains. During the summer season, except when flooded by vio-

lent showers, the river, at a distance of from two hundred to four hundred miles from the mountains, would show no surface water other than occasional pools in the sand, and none of the water coming into said river in Colorado would flow to or across the lands in the central or humid portion of Kansas. The ordinary flow of said river in Kansas has been still further temporarily diminished by the destruction of timber on the water shed of said river in the mountains and by the extension westward of the cultivated area of lands in Kansas and by the sinking in western Kansas of upwards of one thousand wells contiguous to said river, and the pumping and use of the waters thus obtained upon the adjoining land.

Second—All of the canals, ditches and reservoirs in Colorado complained of in said bill of complaint have their headgates within one hundred and fifty miles of the mountains, and the waters diverted into said canals and ditches are the waters which, if not so diverted, would be lost by seepage and evaporation long before reaching the lands in Kansas claimed to be injured by such diversion.

Third—The waters of the Arkansas river diverted in Colorado are those which fall within the water shed of said river in said state, and they are diverted and used only upon such lands within said water shed as need the same for domestic and irrigation purposes, and all the said lands upon which said waters are used are lands entitled to the same as the riparian lands of said river.

This defendant, now having fully answered all the allegations in the plaintiff's bill of complaint, or

so much thereof as the defendant is advised should be answered, asks to be hence dismissed with cost and charges in this behalf sustained.

Chas. C. Post

Attorney-General of the State of Colorado and Solicitor for Defendant.

Charles S. Thomas

Lucien M. Goddard

Platt Rogers

Henry A. Dubois,

Of Counsel.

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Office Supreme Court U.S.
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OCT 14 1903
JAMES H. McKENNEY,
Clerk.

3 Orig'l.
C. T. 1906

IN THE

SUPREME COURT

OF THE

UNITED STATES

THE STATE OF KANSAS,
Complainant,

vs.

THE STATE OF COLORADO ET AL.,
Defendants.

Original Proceeding
No. 8

SEPARATE ANSWER OF THE GRAHAM DITCH COMPANY, DEFENDANT.

CHARLES C. GOODALE,
Solicitor for The Graham Ditch Company.

IN THE

SUPREME COURT

OF THE UNITED STATES.

To the Honorable, the Chief Justice and the Associate Justices of the Supreme Court of the United States:

The answer of The Graham Ditch Company, a corporation organized and existing under the laws of the State of Colorado, and whose postoffice address and principal place of business is Lamar, State of Colorado, one of the defendants to the amended bill of complaint of the State of Kansas, complainant.

This defendant, now and at all times hereafter saving and reserving unto itself all benefit and advantage of exception which can or may be had or taken to the many errors, uncertainties and other imperfections in the said bill contained, for answer thereunto, or to so much and such parts thereof as this defendant is advised it is material or necessary for it to make answer unto, answering separately says:

1. This defendant admits that the State of Kansas and the State of Colorado, respectively, were admitted into the Union at the dates set forth in the amended bill, and that the original bill in this proceeding and the amended bill were and are exhibited and the proceedings in reference thereto have been and are being prosecuted as in the

bill alleged, and admits that the rise, course, drainage, area and general physical characteristics of the Arkansas River and of the valley thereof, except as hereinafter set forth, are as stated in the said amended bill of complaint.

2. This defendant denies that the said Arkansas River, after leaving the mountains, is a navigable stream under the laws and departmental rules and regulations of the United States. This defendant admits that the lands bordering on the Arkansas River and its tributaries in the State of Colorado, as to that part thereof situated within the Rocky Mountains and in the foothills at the eastern base thereof, are of such a character that they are not saturated to an appreciable extent by the waters flowing in said river or its tributaries, but denies that said lands herein mentioned are arid or barren up to the margin of said streams, or at all, but, on the contrary, alleges that there has in the past been, and to a certain extent now is, a growth of timber and other vegetation thereon, and this defendant alleges that from the foothills on the eastern base of the said Rocky Mountains and thence to the eastern boundary of the State of Colorado, the said lands bordering upon the Arkansas River and its tributaries in the State of Colorado are of like character to the lands in the western one hundred and fifty miles of the State of Kansas, and that the same are of like physical characteristics.

3. This defendant denies that any diminution of the flow of said river from the State of Colorado into the State of Kansas is wholly or mainly attributable to the diversion of the waters of said stream in the State of Colorado, and denies that there has been any wrongful diversion of said waters within the State of Colorado. This defendant denies that the normal flow of said river at the state line for ten

months in the year, or for any considerable period, is upwards of two thousand cubic feet per second, and, on the contrary, alleges that in the absence of any irrigation in the State of Colorado, or any diversion of the waters of said stream in said State, the normal flow, exclusive of periods of flood, would not at the said state line exceed five hundred cubic feet per second of time. This defendant denies that the tributaries of said river in the State of Kansas are few in number, or that the same do not or could not furnish water sufficient to cause a continuous stream to flow in the bed of said river as to that portion of said stream east of the 99th Meridian (west of Greenwich) and this defendant alleges that east of said 99th Meridian there are many streams of water tributary to and furnishing a large supply of water to said Arkansas River, and in this connection this defendant alleges that the said Arkansas River, within the State of Kansas, drains an area of more than twenty thousand square miles, and that in the eastern half of the course of said river within said State there is ample rainfall sufficient in itself to create and continue a large stream of water. This defendant admits that the rainfall in the drainage area of said river in the western part of the State of Kansas is light and by reason of the porous nature of the soil through a considerable portion of the western part of said State, a part of the water so falling sinks into the earth, but this defendant denies that only a small portion thereof finds its way to said river, and on information and belief alleges that substantially all thereof, by drainage or by seepage, ultimately supplies the flow of water in the channel of said stream. This defendant denies that the ordinary and usual rainfall in that part of the valley of said river lying east of the 98th Me-

ridian is inadequate for the growing and maturing of cultivated crops, but admits that in the western part of the said State of Kansas such rainfall is inadequate for so growing and maturing cultivated crops, and alleges that in the portions of said State so affected the inhabitants thereof have resorted to and are now daily practicing the method of appropriation of water from said Arkansas River, and using the same for the irrigation of lands, in the same manner as in the said bill of complaint is alleged to be done in the State of Colorado.

4. This defendant denies that from time immemorial, or at all, the waters of said river have flowed through underlying sand and gravel extending in width under the entire valley of the Arkansas River through the State of Kansas, or for any material portion thereof, and denies that any part of the course and flow of said river is beneath the surface of the bottom lands of the valley of said river, or that the course or flow thereof is of any greater width than the channel of said river between its banks, or that there is any under-flow of water co-extensive with the valley of said river passing from the State of Colorado into the State of Kansas, or in, or through said State of Kansas. This defendant admits that there are underground waters in the valley of the said Arkansas River outside of and away from the channel of said stream, but on information and belief alleges the same to be the ordinary water table of the country, and that the same does not constitute an under-flow of the said Arkansas River, and this defendant denies that as to such underground waters designated in the complaint as an "under-flow" that there is any difference whatsoever between the State of Colorado east of the foothills and the said State of Kansas, but alleges that there is a similarity of physical

characteristics in that respect in the valley of the Arkansas River both east and west of the boundary line separating said States. This defendant denies that such underground water, whether called "under-flow" or otherwise, furnishes sufficient moisture to grow ordinary farming crops in the absence of rainfall, unless the same be supplemented by a system of irrigation such as is used in the State of Colorado and in the western part of Kansas. This defendant, upon information and belief, denies that the evaporation from said river, to any appreciable extent or material degree, tends to cool or moisten the surrounding atmosphere, or promote the growth of vegetation, or enhance the value of lands, or conduce directly or materially or at all to the public health or the making of the locality habitable. This defendant admits that evaporation from said stream is rapid and great, and that it is greater at the west line of the State of Kansas than it is at points farther east, and in this connection this defendant alleges that such evaporation is yet greater in the State of Colorado between the point where said river leaves the foothills and the point where it crosses the boundary between Kansas and Colorado, and this defendant alleges that under the system of irrigation used in the State of Colorado the injury, if any, resulting to the inhabitants of the State of Kansas through the loss of water by evaporation is less than it would be if there were no such irrigation system in use within the State of Colorado.

This defendant admits that in the western half of the State of Kansas are many acres of arid upland and plateau bearing grass upon which cattle may feed, and that the cattle so fed must have watering places, and this defendant alleges that the number of such watering places

in western Kansas has not been diminished, but, on the contrary, has been increased by the methods of irrigation used in the State of Colorado, and especially through the effect of return waters in times when otherwise there would be small flow in the channel of said river, as hereinafter more specifically set forth. This defendant admits that if the surface flow of water in the bed of said river should be "wholly" cut off from the State of Kansas, that the underground waters under the adjacent bottom lands called in the bill of complaint "under-flow" would diminish, but, upon information and belief, this defendant alleges that such diminution would result only because of the increased drainage resulting from such process, but this defendant alleges that the system of irrigation practiced in the State of Colorado has not had the effect, and never can have the effect of wholly or materially cutting off from the State of Kansas a surface flow of water in the bed of said river, and, on the contrary, alleges that said irrigation system equalizes the flow of said river in the channel thereof through the State of Kansas, diminishing the volume of flood water and increasing the supply in periods of comparative drought.

5. This defendant admits that that part of the bottom lands of the river lying east of the 98th Meridian (west of Greenwich) including those adjacent to the bed of said river are fertile and productive and adapted to the growth of crops mentioned in the bill, and that said lands are valuable for grazing, but this defendant denies that in the western part of the State of Kansas said bottom lands are fertile or productive or valuable for farming purposes or adapted to the growing of corn, wheat, alfalfa, rye, domestic grasses, orchards, fruits, vegetables, or like crops,

grains or grasses, except by the aid of irrigation and by the diversion and appropriation of water from the said Arkansas River, which said diversion and appropriation of water is, under the sanction of the laws of the State of Kansas as hereinafter set forth, practiced by the inhabitants of that portion of the State of Kansas west of the 98th Meridian aforesaid.

6. Whether or not the actual value of the bottom lands in the valley of the Arkansas River in the State of Kansas is the value set up in the bill of complaint, this defendant has not, and cannot obtain, sufficient information upon which to base a belief, but this defendant denies that the value of said lands is in any degree dependent upon the said lands being permitted to receive the benefits arising from the natural and normal flow of water in said river, and denies that the acts alleged to have been done by this defendant and its inhabitants are wrongful, and this defendant denies that by reason of the alleged wrongs in the said bill of complaint set forth, or otherwise, the value of said lands has shrunk many millions of dollars, or in any sum whatsoever, so far as such value is dependent upon the use of the waters of said Arkansas River, and denies that the said alleged wrongs have resulted in a loss to the citizens of the State of Kansas, or to the taxable wealth, or to the revenue of said State, or to the school system thereof, in any amount or extent whatsoever.

7. This defendant admits the acquisition by the State of Kansas of sections numbered 16 and 36 of each Governmental Township, and admits the derivation of title to certain alternate sections of land to aid in the construction of certain railroad and telegraph lines in said

State as in the bill of complaint set forth, and that the said lands have been conveyed and are now held by the grantees thereof, and this defendant admits the settlement of certain of the lands in the said State of Kansas in the Arkansas Valley from the south line of the State of Kansas to the City of Great Bend, and subsequently the settlement of certain lands from Great Bend westward to the state line of the State of Kansas, and that the settlers thereon and their successors in interest have continuously held and owned all of the riparian and other rights of every kind and nature appertaining to or belonging to said lands, but this defendant alleges that such "riparian and other rights" so held by said settlers and their successors in interest were at all times and now are subject to the riparian rights of other proprietors of lands in the valley of the Arkansas higher up said stream, and subject also to the right of the inhabitants in the valley of said Arkansas River and those who should from time to time become inhabitants therein to appropriate the waters of said stream and use the same in the irrigation of lands within the valley of the said Arkansas River through any portion of its course, as hereinafter more specifically set forth.

8. This defendant denies that all of the territory of the State of Kansas became a part of the territory of the United States by the treaty with the French Republic of April 30th, 1803, ceding Louisiana, and, on the contrary, alleges that all that portion of the said State of Kansas lying west of the 100th Meridian (west of Greenwich) and south of the Arkansas River was never derived under said treaty and that said portion of said State never belonged to the French Republic, and in that behalf this defendant alleges that the said portion of said territory, being that

portion of Kansas adjoining the State of Colorado, and on the south side of the Arkansas River, was derived by the United States from the Republic of Texas, which in turn succeeded in sovereignty over said territory to the united Mexican States. This defendant again denies that the said Arkansas River is now, or at any time has been, a navigable river in the State of Kansas or that it has at any time been treated as such, or that the title to the bed of said river in the State of Kansas ever passed to said State, or that said State is now or ever has been the owner thereof, or entitled to the control thereof, or has ever attempted to control the same, save and except that as a political organization it has sovereignty over the same, or that it has ever assumed to exercise any authority over said river or the bed thereof, except as by an act of the legislature of the State of Kansas passed in 1886, it declared that the right to the use of running water flowing in a river or stream of Kansas for the purposes of irrigation might be acquired by appropriation, and by a like act passed in 1891 it declared that in that portion of the State west of the 99th Meridian all natural waters standing or running should be devoted—first, to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses; and secondly, to other industrial uses, and that the same might be diverted from the natural beds, basins or channels for such purposes and uses, and by like acts subsequently passed it has enlarged and extended the right to use the natural waters of said State for irrigation purposes, eastward to the 98th Meridian.

9. This defendant has no knowledge of the several conveyances or grants of lands in the valley of the Arkansas River in the State of Kansas heretofore made by the

Government of the United States, but avers that all of the conveyances or grants referred to in said bill of complaint were made subject to all rights to water from said river for irrigation purposes theretofore, and thereafter to be acquired, and were taken with full knowledge on the part of said State of Kansas and by each and every grantee of said lands that the waters of said river had been, were being and would be appropriated in the State of Colorado for beneficial uses in the irrigation of land, and that the lands in said valley in the State of Kansas west of the 98th Meridian and in the State of Colorado could only be made available for agricultural purposes by like appropriation and use, and that the Government of the United States as the primary owner of said lands had assumed that it held the same subject to the appropriation of the waters of said river for irrigation purposes, and that all patents of lands granted after July 9th, 1870, should be subject to all vested and accrued water rights over said river.

10. As to that certain tract of land described in paragraph 5 of plaintiff's bill, consisting of lots numbered 3, 5, 6 and 7 of Section 3, Township 27 South, of Range 24 West, in Ford County, Kansas, alleged to be used for the maintenance of a Soldiers' Home, this defendant alleges upon information and belief that the said State of Kansas as a proprietor of said lands has not made and does not now make any beneficial use of the waters flowing in the channel of the said Arkansas River for the improvement of said lands or the maintenance of said Soldiers' Home, and this defendant denies that the value of said lands for farming purposes depends upon the flow of water in the bed of the river or upon the so-called under-flow beneath the said land, and under the circumstances and conditions of the

use of said water this defendant denies that the said State of Kansas is entitled to the full, free and natural flow of all waters which naturally would flow in said river to or beneath said land, and denies that the rights of the State of Kansas thereto are prior or superior to the rights or claims of this defendant or of the inhabitants of the State of Colorado, so far as pertains to the waters of the said Arkansas River.

11. As to those certain lands described in paragraph 6 of the complainant's bill as being in Sections 18 and 19, Township 23 South, of Range 5 West of the Sixth Principal Meridian in Reno County, Kansas, and designated as reformatory lands, this defendant alleges upon information and belief that the said State of Kansas as the proprietor of said lands has never made any beneficial use of the waters of the Arkansas River flowing by or near said lands, and this defendant denies that, under the circumstances and conditions affecting the said Arkansas River and the waters thereof, the said State of Kansas is entitled to the full and natural flow of the water of the Arkansas River in its accustomed place or at its normal height or in its natural volume underneath or by the said reformatory lands, and denies that the rights of the said State of Kansas are prior or superior to the rights of this defendant or of the inhabitants of the said State of Colorado in the waters of said Arkansas River.

12. This defendant denies that the legislature of the State of Colorado has passed laws authorizing or licensing the diversion of water from said Arkansas River, or has granted to any person, firm or corporation the right or authority to make such diversion, but, on the contrary,

avers that said legislature has at all times recognized the right to make such diversion as one existing independent of any action by it and as one founded on necessity and on the usages and customs of the arid region of the United States existing prior to the adoption of the Constitution of the State of Colorado, and approved and confirmed by the statutes, decisions and rulings of the legislative, judicial and executive departments of the United States, and said legislature has never assumed the power to either grant or restrain the right to divert the waters of the Arkansas River for irrigation or other purposes or to do more with respect to such diversions than to regulate and to control the same by appropriate legislation.

And this defendant denies that as a result of the exercise of the rights alleged in the amended bill to be claimed by the State of Colorado all of the waters of the said Arkansas River are forever lost to said stream and are thereby prevented from flowing into and through the State of Kansas, and, on the contrary, alleges that as a result of the irrigation systems in vogue in the State of Colorado and by the storage and return of waters through such irrigation systems, all the surplus of such waters not actually consumed in the supply of vegetation is returned to the said Arkansas River and flows down into and through the State of Kansas, and the flow of the said Arkansas River in the State of Kansas is thereby equalized, the dangers from flood diminished and the supply of water in times of comparative drought increased.

And this defendant further alleges that the allegation as to the appropriations of water from the Arkansas River stated to be 4,200 cubic feet per

second from the said river, and from the affluents and tributaries thereof 4,300 cubic feet per second, does not represent the actual diversion of said waters, or the diminution of the volume of water flowing in the channel of said river; that waters returned to the channel of the stream from ditches farthest up the stream are again taken out by ditches lower down on the stream, and that to a large extent the same water is repeatedly used in successive ditches, and this defendant denies that as a result of such appropriations, or otherwise, the total average flow of the said Arkansas River or the total average flow of its affluents and tributaries is taken out, used or absorbed as in the bill of complaint alleged, and denies that any considerable portion of the ordinary flow of said Arkansas River is prevented from passing into the State of Kansas, and, on the contrary, alleges that the major part of the aggregate amount of water derived from the channel of the said Arkansas River in the State of Colorado, by drainage, seepage and return waters, again enters the said stream and the channel thereof and continues to flow into and through the State of Kansas.

13. This defendant admits that ditch owners are diverting from the natural channel the waters flowing in the bed of the Arkansas River and its tributaries in the State of Colorado, but denies that they are carrying said waters great distances from their natural courses or discharging them upon non-riparian lands in the sense in which the word "riparian" is used in the assertion of the complainant's claims, and this defendant alleges that all of the waters diverted from the channel of the Arkansas River in the State of Colorado are used, and used solely, within the valley of the Arkansas River, and while the

same are discharged for agricultural purposes upon arid lands, such lands are valley lands in the drainage of the said Arkansas River, and this defendant alleges that the waters so diverted, after being used upon the lands so lying in the valley of the Arkansas, are returned to said channel, diminished only to such extent as is necessary and inevitable from the use of the same for agricultural purposes, and this defendant denies that such waters are wholly lost to such streams, or to the State of Kansas, or to its inhabitants, or that such diversion is carried to such an extent that no water flows in the bed of said river from the State of Colorado to the State of Kansas during the annual growing season or that the so-called under-flow of water in Kansas is thereby diminished, and, on the contrary, this defendant alleges as heretofore stated that the return waters from such systems of irrigation again enter the channel of the said river, and that the same do flow into the State of Kansas and through the said State, and this defendant denies that by the diversion of water from the said river in the State of Colorado the bottom lands of said river have become or will become injured, ruined or deserted.

14. This defendant denies that the State of Colorado or the corporations joined with it as defendants in this cause claim or openly assert their right or power to do as they please with all of the waters of the Arkansas River within the borders of Colorado regardless of any rights which the State of Kansas or its citizens may have therein, but this defendant, and, as this defendant is advised, the corporations associated with it as defendants herein, do claim and assert that they have the right and power to apply the water of the Arkansas River within the borders of

Colorado to beneficial and necessary uses for the development of the country and the support of the inhabitants thereof upon those lands situated within the valley and drainage of the Arkansas River, returning the said waters after such use and to the extent of any surplus remaining from such use into the channel of the Arkansas River.

15. This defendant denies that when the Territory of Kansas was created or the State of Kansas admitted to the Union, the water of said Arkansas River was wholly unappropriated, or that the common law as to riparian rights, as claimed in said amended bill of complaint, extended over said valley in the Territory of Kansas, or that the owners of lands along said river were entitled to the unimpeded flow of the water of said river, and, on the contrary, avers that numerous appropriations of said water had been made for irrigation purposes long prior to the creation of said Territory, and many more were made prior to the conveyance by the Government of the United States of any of the lands lying along or adjacent to said river, and that the necessity and right to divert the water of said river for the reclamation of arid land had long previous to the creation of said Territory been asserted and exercised by the persons in possession of said lands, and said necessity and right were thereafter recognized by the legislature of the Territory of Kansas, and all lands along said river acquired by the State of Kansas or by individuals or corporations within the Territory or State of Kansas were taken and held with full knowledge of the necessity of diverting the water of said river for the purpose of reclaiming and making productive the lands along said river and of the usages and customs there prevailing authorizing the same, and that appropriations had been, were being and would

be made in that portion of the valley which is now within the jurisdiction of the State of Colorado, and that to the extent of said appropriations the flow of water of said river might by said usages and customs be lawfully impeded for the purpose of applying the same to beneficial uses within the valley of said Arkansas River.

16. This defendant denies that by its taking of water from said river in the State of Colorado in the manner alleged in said bill of complaint the State of Kansas, or any of its citizens, or the owners of land along said river in the State of Kansas, have been injured in any degree whatever, or that the fertility of the lands or the use thereof to the fullest extent to which the same is naturally capable of use, have been diminished or impaired, or that the crops, trees or vegetation growing along said river have perished or will perish, or that the wells have become or will become dry, or that the salubrity or healthfulness of said valley or any of the lands adjacent to said river have been or will be impaired.

And this defendant denies that by reason of the diversion of said waters as in the complaint alleged during the summer season or during the dry portion of the year, the bed of said river in the State of Kansas above the city of Wichita becomes practically or oftentimes wholly dry, and this defendant alleges that if in said portion of the said State of Kansas the bed of said stream and the natural channel thereof is becoming filled with drifting sand, dirt or debris, and said obstructions are rapidly becoming permanent by growing vegetation, and if at the time of sudden and excessive rainfall in the State of Kansas and of sudden and excessive melting of snows in the State of Col-

orado the flow of the waters thereof can not flow down the natural channel of said river, so filled as aforesaid, but travel the adjacent bottom lands, washing channels therethrough and depositing dirt and debris thereon and doing great damage to stock pastures, crops grown or improvements situated thereon, and injuring or decreasing the value of said lands, such effects are not attributable in any degree whatsoever to the irrigation system within the State of Colorado, but the same are attributable to and fully explained by other causes not connected with the diversion and appropriation and use of water for irrigation purposes in the State of Colorado, and this defendant alleges that the evils so alleged to exist are diminished rather than intensified by the existence of said irrigation systems within the State of Colorado.

II.

THIS DEFENDANT FOR FURTHER ANSWER TO THE BILL OF COMPLAINT, SAYS:

1. The appropriation of this defendant hereinafter referred to of the waters of the Arkansas River complained of in said bill of complaint were made in accordance with and in reliance upon the doctrine respecting the appropriation of the water of the natural streams for irrigation and other beneficial uses which, by usage and custom prevailed in the arid region of the United States at the time of said appropriations, and which, by the recognition and approval of the United States, has at all times been the law applicable to the public lands in said arid region.

2. Prior to the acquisition of private title to any of the lands acquired by the general government from France, Mexico and Texas by purchase, cession and annexation, respectively, comprising all the lands now within the jurisdiction of the United States between the Mississippi river and the Pacific coast, said general government caused said lands to be explored and reported upon for the purpose of ascertaining the natural resources and the physical and climatic characteristics of the various portions thereof, and by said explorations and information obtained from time to time, it became known to the United States and the inhabitants thereof that from about the 97th Meridian to the coast range of the Pacific slope, the land was an arid waste without timber or useful vegetation, except in the mountains, and that although the soil was rich and fertile, and great deposits of gold, silver and other valuable minerals existed therein, the soil could not be made productive nor the minerals extracted, nor could the land be inhabited, except by the diversion of water from the natural streams and the application thereof to agricultural and mining uses, and that in that portion of said domain which lay south of the Arkansas River, and which had formerly been a part of Mexico, the laws, customs and usages there prevailing authorized and sanctioned the diversion and use of water for agricultural and other useful purposes in contravention of any right of the riparian owner to have such water continually flow in its natural channel.

3. With the earliest settlement in said arid region for agricultural and mining purposes, which was long prior to the opening of said lands to pre-emption and purchase, by necessity, common consent and uniform practice, the doc-

trine obtained that the waters of all the natural streams flowing through said arid region were subject to diversion and use for agricultural and mining purposes, and that the right to the water thus diverted could be obtained both as against the United States as the owner of the public lands and all grantees of the United States of lands lying along said streams, and that the right of the several appropriators from any given stream should be in the order of diversion and use, the first in time being first in right, and said doctrine has at all times been and now is the customary and statute law of said arid region in respect to the natural streams thereof.

With knowledge and in recognition of such right and custom of the inhabitants of such arid region to divert waters, and to apply the same to beneficial and necessary uses, the United States, in its treaty with Spain of February 22nd, 1819, and afterwards in its treaty of January 12th, 1828, with the United Mexican States, expressly stipulated and provided, that the use of the waters of the Arkansas River, and of certain other boundary streams, should be common to the respective inhabitants of both nations, parties to such treaties respectively.

4. Upon the creation and admission of the several territories and states of said arid region, including Kansas, both as a territory and state, they recognized, approved and confirmed, and from thence hitherto have enforced said doctrine, and rights to water by diversion from the streams of said arid region have been maintained as against all claims of riparian rights in conflict therewith.

5. The Government of the United States, long prior to the sale by it of any of the public lands in the Arkansas

valley, recognized and approved said doctrine, and applied the same to said public lands, and renounced and surrendered all riparian rights which it might have asserted in contravention of said doctrine, and from thence hitherto has held and disposed of said lands subject to and in accordance with said doctrine, and has at all times encouraged and promoted the diversion and use of the water of the streams in said arid region for agricultural and mining purposes, and by grants of public money has aided in the construction of canals, ditches and reservoirs and other appliances for the diversion, storage and use of water, in the reclamation and cultivation of the public lands.

6. By an act of Congress, approved September 4, 1841, and by subsequent acts relating thereto, the public lands, including the lands in said arid region were declared subject to pre-emption and homestead purchase, and all persons desiring to avail themselves of the provisions of said acts were required to make a settlement upon the land in person and to inhabit and improve the same. It was then, and at all times since has been well known to the general government, and particularly to Congress and the executive departments having in charge the administration of said acts, that the provisions thereof in respect to settlement, inhabitancy and improvement could not be complied with in the pre-emption and purchase of arid lands, except by the diversion of the waters of the streams upon the public lands and the application thereof to domestic and irrigation purposes in reliance upon the continuance of the right so to do in accordance with said doctrine of appropriation.

7. By means of the diversion and use of the waters

of said natural streams, many million acres of the public lands in said arid region have been settled upon, inhabited and improved and title thereto obtained from the general government, in the belief that by its action and conduct in the disposition of its public lands, the United States had accepted and applied to said public lands the doctrine of appropriation as hereinbefore set forth; and there has been paid to said general government, on account of said lands so improved by the diversion and use of water in accordance with said doctrine, upwards of twenty million dollars, and all of the lands in the valley of the Arkansas in the State of Colorado, save and except certain Indian lands, were settled upon and patents therefor obtained by proof of the diversion and use of the waters of said Arkansas river in the reclamation and improvement of said lands, said diversions so made being those complained of and sought to be enjoined in and by the bill of complaint herein.

8. The territory of Kansas by its legislature, recognized and approved the said doctrine of appropriation, and in pursuance thereof in 1859 authorized The St. Charles Town Company to divert the waters of the South Platte river and Cherry creek, and The Mountain Company to divert the waters of the Platte river, and The El Paso Town Company to divert the waters of the tributaries of the Arkansas river heading at Pike's Peak; and in 1860 authorized The Capital Hydraulic Company to divert for irrigation purposes all the waters of the South Platte river and Cherry creek. And the State of Kansas, by its legislature, has also recognized, approved and adopted said doctrine; an act of said legislature enacted in 1868, authorizing corporations to construct canals di-

verting water for irrigation purposes; an act of the legislature enacted in 1886 providing that the running waters of the state might be appropriated for purposes of irrigation; an act of said legislature enacted in 1891, providing that in all that portion of the state west of the 99th Meridian all natural waters, whether standing or running and whether surface or subterranean, should be devoted first, to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses; and, second, to other industrial purposes, and might be diverted from natural beds, basins or channels for such purposes and uses; and another act enacted in 1895 providing for the development of the land west of the 98th Meridian by irrigation and regulating the distribution of water in the same manner as in Colorado. Said state by said several acts renouncing and surrendering all rights it may have had in said river or the lands adjacent thereto as riparian owner in contravention of the right to divert the waters thereof for irrigation in Kansas or Colorado.

And in reliance upon the approval and adoption of said doctrine of appropriation by said State of Kansas, about five hundred miles of large canals and ditches have been constructed in Kansas, west of the 97th Meridian at a cost approximating two million dollars and thereby the waters of said Arkansas river have been appropriated and applied to about one hundred and fifty thousand acres of land in the valley of said river, in the State of Kansas.

9. By the act of Congress approved January 29th, 1861, admitting Kansas into the Union, it was specifically provided that the State should never interfere with the primary disposal of the soil within the same by the United States, or with any regulations Congress might find neces-

sary for securing the title in said soil to bona fide purchasers thereof, and that all laws of the United States not locally inapplicable should have the same force and effect within said State as in other States of the Union.

10. Following the admission into the Union of the State of Kansas, said doctrine of appropriation was further recognized by Congress as the law applicable to the public lands and the natural streams thereof, including those in the State of Kansas, by the following acts:

An act approved July 26, 1866, by which it was provided that whenever, by priority of possession, rights to the use of water for mining, manufacturing or other purposes, have accrued and are recognized according to local customs, laws and decisions, the owners and possessors shall be maintained and protected in their rights;

An act approved July 9, 1870, in which it was provided that all patents granted, or pre-emptions or homesteads allowed, should be subject to any vested and acquired water rights or rights to ditches and reservoirs used in connection with such water rights;

An act approved March 3, 1877, known as "The Desert Land Act," which declared that all waters of all lakes, rivers and other sources of supply upon the public land should remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes, and in and by which it was also provided that by the construction of canals and ditches and the application of said waters to the irrigation of the public lands, the title to said lands might thereby be obtained from the United States;

An act approved March 3, 1891, confirming the rights of way over the public lands in the arid region for canals and reservoirs for irrigation purposes;

An act approved August 18, 1894, providing for the conveyance to the several states in the arid region of such public lands as they might reclaim and irrigate;

An act approved June 17, 1902, authorizing and undertaking the construction of canals, ditches and reservoirs in the arid region, including therein the State of Colorado and the western portion of Kansas, whereby the waters of the public lands might be diverted and used for irrigation purposes, and appropriating for that purpose the proceeds of all moneys received from the sale of public lands in the States of Colorado and Kansas.

Under and by virtue of said act approved March 3, 1877, which was made applicable to lands in Colorado by an act approved March 3, 1891, several thousand acres of land in the Arkansas Valley in the State of Colorado, were reclaimed and irrigated, and the diversions of water for said purposes are in part the diversions complained of in the said bill of complaint.

11. Said doctrine was further recognized by Congress by the appropriation, on October 2nd, 1888, of $229,000 for the purpose of investigating the extent to which the arid region of the United States might be redeemed by irrigation and for the segregation of the irrigable lands in such arid region, and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of water for irrigation and also by a further appropriation made on March 2nd, 1889, of $450,000 for the like purpose, all of which moneys were

expended in investigating and selecting reservoir sites and in running contour lines for the purpose of aiding and assisting those desiring to appropriate the waters of the natural streams and using the same for irrigating purposes.

12. The provisions of the Constitution of the State of Colorado set forth and complained of in the bill of complaint, were adopted in harmony with and in pursuance of the policy of the United States in respect to the diversion and use of water in the irrigation of land, and the same do not conflict with or contravene any act of Congress bearing upon said appropriation and use, but, on the contrary, are intended as a constitutional guaranty that the right to divert water for beneficial purposes as authorized and encouraged by the acts of Congress referred to shall never be denied, and said provisions were accepted and approved by the action of Congress in admitting Colorado into the Union, and the several acts of the legislature of Colorado, referred to in said bill of complaint, have been enacted for the purpose of protecting and regulating appropriations made in pursuance of the usages and customs prevailing in the arid region and the rights of appropriation as recognized and confirmed by the acts of Congress referred to.

13. All grants and patents of land in the valley of the Arkansas, in the State of Kansas, were made by the United States, subject to the doctrine of appropriation heretofore set forth, and were accepted by the several grantees thereof with the knowledge that in the sale and disposition of the arid lands of the United States along said Arkansas River west of the 97th Meridian, it had been and would be necessary to divert and use the waters of

said river in the improvement and cultivation thereof, and said grants and patents of lands in the State of Kansas were made subject to the right of all persons desiring the use of the same for agricultural purposes to appropriate the waters of the Arkansas river, either in Kansas or Colorado, to the full extent of said river, and all patents granted and all pre-emptions and homesteads allowed of lands in the valley of the Arkansas in the State of Kansas subsequent to July 9th, 1870, including in particular the lands described in the bill of complaint situated in Ford county, conveyed to said State of Kansas by the United States on the 13th day of June, 1889, and the lands in Reno county described in said bill of complaint conveyed to the said State of Kansas at divers times subsequent to said 9th day of July, 1870, were, by the act of Congress of July 9th, 1870, made subject to all water rights in said river and rights of ditches and reservoirs in connection therewith acquired in accordance with the local customs, laws and decisions of Colorado.

III.

THIS DEFENDANT, FOR FURTHER ANSWER TO THE BILL OF COMPLAINT, SAYS:

1. Many of the appropriations of the waters of the Arkansas River, in the State of Colorado, complained of in said bill of complaint, were made prior to the creation of the Territory of Colorado, and while said Arkansas valley was a part of the territory of Kansas, and defendant is, therefore, unable to state the times at which said appropriations were made or the amount of water thus diverted from said river

2. Following the creation of the Territory of Colorado and prior to the year 1865, sixty-eight ditches and canals were constructed, and 615 cubic feet of water per second of time were thereby diverted from said river and its tributaries, and have at all times since been used in the irrigation of land in said Arkansas valley. From and including the year 1865 to the year 1870, 127 additional ditches and canals were constructed, and 458 cubic feet of water per second of time were thereby diverted from said river, and at all times since have been continuously used in the irrigation of lands in said valley. From and including the year 1870 to the year 1880, 268 additional ditches and canals were constructed and 945 cubic feet of water per second of time thereby diverted, and at all times since used in the irrigation of land in said valley. From and including the year 1880 to the year 1890, 250 additional ditches and canals were constructed, and 3,859 cubic feet of water per second of time thereby diverted from said river, and at all times since continuously used when obtainable in the irrigation of land in said valley. All of said ditches and canals have been constructed by individuals and corporations, and the water, when obtainable, has been taken from said river and applied to the reclamation and irrigation of about five hundred thousand acres of land in said valley which, before said diversion and use, was arid and incapable of producing crops, all of said lands being in the watershed of and riparian to said river, and none of the waters of said river being diverted and carried to lands beyond the watershed of said river.

3. In the construction of said canals and ditches and the reservoirs connected therewith, many million dollars have been expended, and in the lands irrigated by means

of said ditches and canals, and in the improvements thereon and the machinery used in the cultivation thereof more than twenty-five million dollars have been invested. Numerous towns and villages have grown up in said valley in the State of Colorado, having an aggregate population of more than one hundred thousand, and houses, stores, churches, school houses, factories and public and private buildings for various purposes have been constructed for occupation and use, and actually used in connection with the continued settlement and cultivation of the lands in said valley by the use of the waters of said Arkansas river, the amount so invested aggregating many million dollars.

4. In 1879 and 1881 the legislature of Colorado enacted certain statutes providing for the adjudication of rights to water by appropriation for agricultural uses from the streams in said State, under and by virtue of which irrigation districts were created along the entire length of the Arkansas river in said State, and proceedings were thereupon had in each of said districts in which the owners of ditches and canals taking water from said Arkansas river and its tributaries were parties, and in which the amount of water to which each ditch or canal was entitled was ascertained and decreed. In said proceedings the owners of 713 ditches and canals were parties, and decrees were entered finding the various amounts of water that had been appropriated from said river and its tributaries, and applied to beneficial uses in the irrigation of said lands in said valley, and the dates of said appropriations. In said adjudications many thousand dollars were expended in costs, attorney fees and other necessary expenses in the belief that by said decrees the right of each appropriator, in the order of his appropriation, to the waters of said

river had been established as a perpetual property right.

5. The State of Kansas and the inhabitants thereof, well knew that, commencing in said State at about the 97th Meridian, and thence continuing westward to the Rocky Mountains, the land was arid and incapable of being settled upon or cultivated, except by the diversion and use of the waters of the natural streams, and that diversions of the waters of the Arkansas river were being made at the times and in the amounts and for the purpose hereinbefore set forth, and that such diversions were made under a claim of right to the continued use of the waters of said river as against all owners of land in the valley of the Arkansas throughout its entire length, and that the settlement of said valley in the State of Colorado and the expenditure of the amounts hereinbefore stated, and the construction of canals, ditches and reservoirs, and in lands, buildings and improvements, and in houses, stores, factories, and public and private buildings, was made in reliance upon the right to divert the waters of said river and to continue such diversion in perpetuity.

6. Prior to the filing of the bill of complaint herein, neither the State of Kansas, nor the owners of lands in the Arkansas valley in said State, complained of said diversions, nor the right to make or continue the same, nor in any way or manner claimed or alleged any right upon the part of said State, or the owners of land in said valley, to the flow of said river as it had been accustomed to flow prior to the making of said appropriations; but, on the contrary, the said State approved the diversion of water from said river and affirmed the right to make the same in the reclamation and irrigation of the lands along said river, by an act of the legislature of said State, enacted in

1886, authorizing and providing for the like diversion and use of the waters of said river in the State of Kansas, and by a further act, enacted in 1891, declaring that in that portion of the State of Kansas west of the 99th Meridian all natural waters, whether running or standing, and whether surface or subterranean, should be devoted, first, to the purposes of irrigation in aid of agriculture; and, second, to other industrial purposes, and that said waters might be diverted from natural beds and channels for such purposes and use, and the owners of land in said valley in said State recognized and approved said appropriations, and the right to continue the same, by themselves constructing about five hundred miles of canals and ditches, and diverting the waters of said river for the irrigation of about one hundred and fifty thousand acres of land, and claimed the right so to do as against all owners of lands along the course of said river in Kansas or elsewhere.

7. The said State of Kansas and the owners of land in the valley of the Arkansas, in said State, have at all times acquiesced in the appropriation of the waters of the Arkansas river in the State of Colorado, and have waived, surrendered and relinquished any and all riparian rights now claimed by them, and by their delay in the filing of the complaint herein have caused the several appropriators of water from said river in Colorado to make the expenditures hereinbefore mentioned, and the people in said valley to settle upon, improve and cultivate the lands, and to build towns and cities, and for that purpose to expend the sums hereinbefore mentioned; and they are now estopped, by their conduct and delay, from asserting or maintaining any of the rights claimed in the said bill of complaint.

8. Upon information and belief, this defendant avers

that the owners of land adjoining said Arkansas river in the State of Kansas west of the 98th Meridian have refused to assert or maintain any right to the flow of said river as against the right to divert and apply same to agricultural and other beneficial uses in the States of Colorado and Kansas, and have refused to authorize or encourage this or any other proceeding by the State of Kansas based upon their alleged rights as riparian owners and designed to destroy or impair the right to use the waters of said river for irrigation and other beneficial purposes as now practiced in the State of Colorado and in the State of Kansas west of the 98th Meridian.

9. This defendant, in making the allegations set forth in this further and separate answer, disclaims any right to represent or act for any other persons or corporations diverting water from the Arkansas river, but makes such allegations for the purpose of bringing to the knowledge of the court the fact that in ascertaining and adjudging the rights of the several persons and corporations diverting water in Colorado, it will be necessary to make parties to this proceeding the owners of lands in Kansas in whose behalf, in part, it is claimed this proceeding was instituted.

IV.

THIS DEFENDANT, FOR FURTHER ANSWER TO THE BILL OF COMPLAINT, SAYS:

1. The Arkansas river leaves the foot hills of the Rocky Mountains at an elevation of about six thousand feet above sea level, and thence flows eastward over an elevated plateau known as the "Great Plains" for several hundred miles, with a practically uniform descent to the

east, passing into the State of Kansas at an elevation of 3,350 feet and into the territory of Oklahoma at an elevation of 1,000 feet. Through Colorado and Kansas it has a broad, level bed of sand, seldom entirely covered with water, the ordinary flow running in thin sheets in tortuous and constantly changing channels in the river bed. From the mountains, for four hundred miles eastward, the watershed of said river is naturally barren, treeless and without any vegetation, except the short sparse grass common to the Great Plains. The annual precipitation of moisture is about fourteen inches, most of which falls in local and violent storms. In its uncultivated condition, the land rapidly sheds the rainfall, discharges it into the river and prevents the saturation of the soil and the formation of springs by which said river and the tributaries along its course might be fed. The tributary streams are usually dry, carrying and discharging water into the river only in case of storms. The sun is seldom obscured, and commencing near the state line between Colorado and Kansas, and continuing eastward for at least two hundred miles, the winds are dry and constant, in the summer season becoming so heated as to burn and destroy the vegetation and to absorb such water as may be in the bed of said river. The waters supplied to said river for about four hundred miles of its course after leaving the mountains are irregular in discharge and constantly varying in quantity, and are not sufficient to cause a steady and permanent flow during any season of the year. The main supply of the river is from the snows and storms in the mountains. As the snow melts only during warm days, this supply is also irregular and uncertain, and the volume of water in the river, therefore, changes daily and even hourly. Long

before irrigation was practiced in Colorado, it was observed that as the waters from the mountains flowed eastward, the volume constantly diminished, and this diminution was the more marked as the river passed beyond the area of local storms caused by the mountains. During the summer season, except when flooded by violent showers, the river, at a distance of from two hundred to four hundred miles from the mountains, would show no surface water other than occasional pools in the sand, and none of the water coming into said river in Colorado would flow to or across the lands in the central or humid portion of Kansas. The ordinary flow of said river in Kansas has been still further diminished by the destruction of timber on the watershed of said river in the mountains and by the extension westward of the cultivated area of lands in Kansas and Colorado which arrests the flow of water during rains into said river and increases the absorbing power of said land, and by the sinking in western Kansas of upwards of one thousand wells contiguous to said river, and the pumping and use of the waters thus obtained upon the adjoining land.

2. All of the canals, ditches and reservoirs in Colorado complained of in said bill of complaint have their headgates within one hundred and fifty miles of the mountains, and the waters diverted into said canals and ditches are the waters, which, if not so diverted, would be lost by seepage and evaporation long before reaching the lands in Kansas claimed to be injured by such diversion.

3. The waters of the Arkansas river diverted in Colorado are those which fall within the watershed of said river in said state, and they are diverted and used only

upon such lands within said watershed as need the same for domestic and irrigation purposes, and all the said lands upon which said waters are used are lands entitled to the same as the riparian lands of said river.

4. By the practice of irrigation in the valley of the Arkansas in Colorado, the flow of said river in the State of Kansas, outside the flood periods, is increased, instead of diminished. A great part of the land lying between the foothills of the mountains and the state line, and extending several miles back from the river on each side, which, in its natural condition is devoid of moisture, as alleged in the bill of complaint, becomes saturated, irrigation producing a condition the same as that produced by abundant rainfall. Water veins and channels are created in the land, springs break out and the water seeking a lower level, continually exudes into the nearest dry channels coursing the country, making them perennial streams discharging water into the river. The storm and flood waters of the river are stored in large quantities and during the irrigating season are added to the water diverted directly from the river and applied to the land, thus serving to convert the flood waters of the river into an additional source of supply for the river during its lowest natural stages. As the irrigated area has moved eastward, the return and seepage waters from the lands irrigated have materially increased the flow of the river and water now flows continuously in said river at many points where, at low stages of the river, it was not accustomed to flow prior to the development of irrigation systems in Colorado, and at many points water is flowing in said river in greater abundance than it was accustomed to flow prior to the introduction of irrigation.

V.

THIS DEFENDANT, FOR FURTHER ANSWER TO THE BILL OF COMPLAINT, SAYS:

1. That it is a corporation organized under the laws of the State of Colorado, on or about the 12th day of September, A. D. 1889, by Martin Graham, James Graham and Walter Meagher, citizens of the State of Colorado, for the purpose of constructing and operating an irrigating ditch to convey water for domestic use and irrigation purposes, upon certain riparian lands owned by the said Martin Graham and James Graham and on certain riparian lands leased by said James Graham and Martin Graham, owned by the State of Colorado. Said lands are situated in the County of Prowers, and State of Colorado.

2. That this defendant constructed a certain irrigating ditch, commencing work thereon on the 2nd day of October, A. D. 1889, which was completed in the month of November, A. D. 1889, and is known as the "Graham Ditch," at a cost of ten thousand ($10,000.00) dollars. Said ditch begins on the south bank of the Arkansas River in the southeast quarter of Section 25 (25), Township twenty-two (22), South of Range forty-five (45), West of the Sixth (6th) P. M., running thence in a southeasterly direction to a point near the northeast corner of the southeast quarter, of Section Thirty-two (32), Township Twenty-two (22), South of Range Forty-four (44), West of the Sixth (6th) P. M., thence south to the south line of said township, thence east along said south township line to the southeast corner of said township, thence north about one hundred and fifty (150) rods along the east line

of said township to the said Arkansas River; said irrigating ditch being about seven (7) miles in length and having a carrying capacity of sixty-one (61) cubic feet per second of time.

3. Said ditch was built to supply water for irrigation and domestic purposes to the following described lands, to wit:

Southwest quarter Southwest quarter SectionTwenty-seven (27), South half Southwest quarter, Section Twenty-eight (28), South half Section Twenty-nine (29), Southeast quarter and South half Southwest quarter Section Thirty (30), North half of Northwest quarter and North half Northeast quarter Section Thirty-one (31), North half Northwest quarter, North half Northeast quarter and Southeast quarter Northeast quarter Section Thirty-two (32), all of Section Thirty-three (33), all of Section Thirty-four (34), all of Section Thirty-five (35) and South half Section Thirty-six (36), all in Township Twenty-two (22), South of Range Forty-four, West of the Sixth (6th) P. M., comprising thirty-two hundred eighty (3280) acres of land. That water has been used for irrigation and domestic purposes on thirty-two hundred forty (3240) acres of said land since the year A. D. 1889, requiring the full carrying capacity of said ditch of sixty-one (61) cubic feet per second of time to supply the same. That under the provisions of the laws of the State of Colorado, on or about the 1st day of July, A. D. 1895, in the District Court of the Third Judicial District of the State of Colorado, in a cause entitled: "IN THE MATTER OF THE ADJUDICATION OF PRIORITIES TO THE USE OF WATER FOR IRRIGATION AND DOMES-

TIC PURPOSES IN WATER DISTRICT NO. 67 OF THE STATE OF COLORADO," a decree was rendered adjudicating to this defendant a priority to the use of water for irrigation and domestic purposes, of sixty-one (61) cubic feet of water per second of time of date prior to August 25th, A. D. 1891.

4. That prior to and since the year A. D. 1889 the said James Graham by mesne conveyances acquired title in fee to two thousand six hundred and eighty (2,680) acres of the said described riparian lands, and all rights thereto appertaining, being all of said lands except the said South half Southwest quarter and Southwest quarter Southeast quarter Section Twenty-nine (29), South half Southwest quarter, West half Southeast quarter and Southeast quarter of Southeast quarter Section Thirty (30), North half Northwest quarter, North half Northeast quarter, Section Thirty-one (31), North half Northwest quarter and Northwest quarter Northeast quarter Section Thity-two (32), all in Township Twenty-two (22), South of Range Forty-four (44) West of Sixth (6th) P. M., comprising six hundred (600) acres. That the said six hundred (600) acres are owned by the State of Colorado, but that the same were leased by the said James Graham from the State of Colorado and had been leased by him ever since the construction of said ditch and for a long time prior thereto up to the time of his death hereinafter referred to.

That the said James Graham became and was the sole owner in fee simple and lessee of the State lands described herein, as aforesaid, and of the said "Graham Ditch," and became the sole owner and was the sole owner of the

capital stock of this defendant at the time of his death which occurred on or about the 26th day of March, A. D. 1899. That said riparian lands, and all rights thereto appertaining, the "Graham Ditch" and capital stock of this defendant is now owned and said State lands are now leased by the estate of the said James Graham deceased, which is still unsettled and is being administered upon as provided by the laws of the State of Colorado.

5. That said lands are bottom lands adjacent to the bed of the said Arkansas River, a small portion of them occupying a part of the bed of the river; that they are fertile and productive, valuable for farming purposes and well adapted to the growing of corn, wheat, alfalfa, rye, domestic and wild grasses, orchards, fruits, vegetables and all like crops grown and usually grown in this latitude of the United States and that several hundred acres of alfalfa are now growing upon said lands by reason of irrigation from the said "Graham Ditch." That the two thousand six hundred and eighty (2,680) acres of land owned in fee by the estate of James Graham as aforesaid, reclaimed from its arid state by means of irrigation from the said Graham Ditch, constructed and operated as aforesaid by this defendant, is reasonably worth the sum of forty ($40.00) dollars per acre, or the total sum of one hundred seven thousand two hundred ($107,200.00) dollars. That the improvements thereon are reasonably worth the sum of ten thousand ($10,000.00) dollars, making a total valuation of one hundred seventeen thousand two hundred ($117,200.00) dollars. That if this defendant is deprived of its right of priority to the use of water of sixty-one (61) cubic feet per second of time adjudged to it, as aforesaid, that said lands will become unfit for cultivation and only

valuable for grazing and will return to their former arid state, and that the estate of James Graham, deceased, owner of said lands and of the capital stock of this defendant, and of the "Graham Ditch" as aforesaid, will be damaged in the sum of at least one hundred thousand ($100,000.00) dollars.

By reason of the foregoing this defendant has a prior and superior right to sixty-one (61) cubic feet of water per second of time for irrigation and domestic purposes upon said described lands by reason of said appropriation and decree of said District Court and that the rights of this defendant to said sixty-one (61) cubic feet of water are prior and superior to any rights or claim of plaintiff or those whom it claims to represent.

VI.

THIS DEFENDANT, FOR FURTHER ANSWER TO THE BILL OF COMPLAINT, SAYS:

1. That while defendant avers and alleges that it is entitled to a priority to the use of sixty-one (61) cubic feet of water per second of time by reason of appropriation and of the decree of the District Court, as aforesaid, as against plaintiff and all others, as an additional and further defense it alleges that it is entitled and has the right to the use of said sixty-one (61) cubic feet of water per second of time as a prior riparian right as against plaintiff and those whom it represents, for the reason that the natural rainfall in the vicinity of said tract of land is slight and insufficient for the growing and maturing of crops, fruits and vegetables and that the value of the above described lands for farming purposes depend entirely upon

their being irrigated. That said lands occupy a part of and are adjacent to the bed of the said Arkansas River and have a frontage upon the Arkansas River upon the south side of seven (7) miles, and are riparian lands. That it is absolutely necessary and said lands reasonably require the use of said sixty-one (61) cubic feet of water per second of time to properly irrigate them so that crops, fruits and vegetables can be raised thereon. That said sixty-one (61) cubic feet of water per second of time used upon said lands for irrigation and domestic purposes does not exhaust the entire flow of the stream of water in the Arkansas River, and what is not necessarily consumed for irrigation and domestic purposes upon said described lands is returned by defendant to the said Arkansas River before it leaves the lands owned by the estate of the said James Graham, deceased.

2. That neither plaintiff nor any of the owners of riparian lands within the State of Kansas upon the said Arkansas River ever made any protest or objection to this defendant's building and operating said irrigating ditch, or to its appropriating and using said sixty-one (61) cubic feet of water per second of time upon said described riparian lands for irrigation and domestic purposes, although plaintiff and said owners of riparian lands well knew that this defendant was expending large sums of money in building and operating said irrigating ditch, in reclaiming said described arid lands and was using said sixty-one (61) cubic feet of water for irrigation and domestic purposes as aforesaid. That by reason of said laches plaintiff and said owners of riparian lands are estopped from asserting any claim or right against this defendant's using said sixty-one (61) cubic feet of water

per second of time for irrigation and domestic purposes upon said described lands.

3. That this defendant's said described riparian lands are situated on the Arkansas River, higher up and above the lands owned by plaintiff and the other owners of riparian lands upon the Arkansas River in the State of Kansas, to which plaintiff refers in its Bill of Complaint.

By reason of the foregoing, this defendant has a prior and superior riparian right to the use of said sixty-one (61) cubic feet of water per second of time for irrigation and domestic purposes upon said described lands, prior and superior to any right or claim of plaintiff, or any other persons whatsoever.

WHEREFORE, This defendant now having fully answered all the allegations in the plaintiff's Bill of Complaint, or so much thereof as the defendant is advised should be answered, asks to be herein dismissed with costs and charges in this behalf sustained.

Charles C. Goodale

Solicitor for the Defendant,
The Graham Ditch Company.

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JAMES H. McKENNEY,
Clerk.

IN THE

SUPREME COURT

OF THE

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C. T. 1906

UNITED STATES

THE STATE OF KANSAS,
Complainant,

vs.

THE STATE OF COLORADO
ET ALS, Defendants.

Original Proceeding No. 3
October term, 1906

THE SEPARATE ANSWER OF THE DEFENDANT, THE FORT LYON CANAL COMPANY, TO THE AMENDED BILL OF COMPLAINT OF THE STATE OF KANSAS, COMPLAINANT.

CHAS. E. GAST,
H. L. LUBERS,
Solictiors for the Fort Lyon Canal Company, Defendant.

CHIEFTAIN PRESS, PUEBLO.

IN THE

SUPREME COURT

OF THE

UNITED STATES

THE STATE OF KANSAS,
Complainant,

vs.

THE STATE OF COLORADO ET ALS,
Defendants.

Original Proceeding No. 7. October term, 1903.

THE SEPARATE ANSWER OF THE DEFENDANT, THE FORT LYON CANAL COMPANY, TO THE AMENDED BILL OF COMPLAINT OF THE STATE OF KANSAS, COMPLAINANT.

This defendant, now and at all times hereafter saving to itself all and all manner of benefit or advantage of exception or otherwise that can or may be had or taken to the many errors, uncertainties and

imperfections in the said Amended Bill of Complaint contained, for answer thereto, or to so much thereof as this defendant is advised it is material for it to make answer to, severally answering, saith:

I

That it is a corporation created, organized and existing under the laws of the state of Colorado; and, as such, it owns and operates what is known as the Fort Lyon canal, a canal used for the carriage and distribution of water for the irrigation of lands lying thereunder, and for supplying water to the owners of water rights in the said canal, for irrigation and other beneficial uses. The headgate of said canal is located at a point on the north bank of the Arkansas river in Otero county, Colorado; and the line thereof extends thence in an easterly direction through the counties of Otero, Bent and Prowers in the said state of Colorado, to what is known as Big Sandy creek, in Powers County aforesaid, a distance and length of about one hundred and thirteen (113) miles.

The origin of the said canal was a certain canal constructed by the United States of America about the year 1860, for the purpose of irrigating certain lands then in occupation by the Cheyenne Indians, the headgate of which was located substantially at the same point where the present headgate of the Fort Lyon canal is situate. The original canal as constructed by the United States of America had a capacity of about fifty-two (52) cubic feet of water per second of time, and it extended from the headgate easterly for a distance of about three miles.

Upon the removal of the said Cheyenne Indians to the Indian Territory, the original canal so constructed by the United States government was abandoned; and in the year 1868 one George T. Reynolds appropriated the same to his own use, and ever since then it has been continuously used for the irrigation of lands lying thereunder. On or about the first day of February, 1884, The Arkansas River, Land, Town and Canal company, a corporation organized under the laws of the state of Colorado, became the owner of the same, and at once began the enlarging and extension of the same, with the then intention of building a canal of substantially the same size and over substantially the same line as it is now completed, ending at Big Sandy creek. And thereafter the work of construction was carried on until the same was completed to a carrying capacity of 838.8 cubic feet of water per second of time, on or about the first day of April, 1889,—the said work being prosecuted continuously, with diligence, and as rapidly as the means of said company and its successors in interest would permit, and as rapidly as required to keep pace with the settlement and development of lands lying under said ditch. That from the year 1884 onward the acreage put under cultivation under the line of the said canal was being constantly increased from year to year up to the year 1890, when the whole capacity of the canal was exhausted by physical distribution to the lands lying under the said canal; that the water appropriated by means thereof has been at all times diligently applied to the lands, for the raising of crops thereon; and that at all times the water obtainable from the

said river by means of the said canal, and under and by virtue of said appropriation, has been necessary to the said beneficial use.

The defendant The Fort Lyon Canal company, by various foreclosures and mesne conveyances, has succeeded to the title of the said canal, and the same is operated by it, not for profit, but to satisfy the water rights, privileges, appropriations and easements therein belonging to the consumers of water therefrom, and requiring for the carriage and delivery of the same the full capacity of the said canal, —each of the said consumers of water being a stockholder in the said company to the extent of the several right and appropriation made by him of such water.

The said defendant further alleges that there are one hundred thousand acres of land lying under the said canal occupied and in use, of which some sixty thousand acres have been reclaimed from an arid state and are now cultivated and farmed, and about forty thousand acres are at present used for grazing and pasturage; and that the present value of the lands lying under the said canal and irrigated therefrom, together with the water rights incident and appurtenant thereto, exceeds three million five hundred thousand dollars ($3,500,000); that valuable improvements, such as houses, barns, fences, and lateral ditches, have been built thereon. A prosperous community has established itself under the said canal, and various towns, such as La Junta, Las Animas and Lamar, having an aggregate population of about seven thousand (7,000) people, have been founded and developed in reliance upon the said

right of appropriation, and are largely dependent for their prosperity upon the maintenance of the said canal; and that there are living on farms lying under the said canal, and irrigated therefrom, about four thousand (4,000) people.

Moreover, this defendant avers that a large portion of the land lying under its said canal and irrigated therefrom was acquired as to title from the United States government under the act approved March 3, 1877, known as "The Desert Land Act," which declared that all waters of all lakes, reservoirs and other sources of supply upon the public land should remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes; and in and by which it was also provided that by the construction of canals and ditches, and the application of said waters to the irrigation of the public lands, the title to said lands might thereby be obtained from the United States.

This defendant further alleges that it and its predecessors in interest, and the consumers of water from the said canal, have ever since the construction thereof used and enjoyed the said appropriation of water for the irrigation of crops lying under the said canal, unchallenged by any one, and without denial or interference. The construction thereof was a matter of public history, notoriously known to all well informed people living in the valley of the Arkansas river, both in the state of Colorado and the state of Kansas; and the original construction thereof and its subsequent extension was largely promoted and carried on by the aid of various citizens of the

state of Kansas, who were and are now owners of riparian lands along the said river in the state of Colorado, and who desired to bring their said lands under cultivation by means of the said canal enterprise; and at all times prior to the institution of this suit have the proprietors of lands riparian to the said river, as the same runs through the state of Kansas, assented thereto and acquiesced therein.

This defendant further alleges that if it should be compelled by this Honorable Court to discontinue its diversion of water from the said Arkansas river, as it and its predecessors in interest have practiced the same for the last twenty years past under authority of the Constitution and laws of the state of Colorado, and pursuant also to the policy of the government of the United States relative to the development and improvement of its arid lands,—great and irreparable wrong and injury would thus be done to the consumers of water thereunder, to the extent that their crops would necessarily be destroyed and their investments rendered valueless, and the said lands would necessarily revert to their former arid state.

And this defendant invokes the benefit of an equitable estoppel against the complainant, the state of Kansas, as well as all other riparian proprietors whom it claims to represent and in whose interest it has filed its bill of complaint, in respect to the matters and things therein charged.

II.

This Defendant for further answer to the Bill of Complaint, says:

1. The appropriation of the waters of the Arkansas river so made by this defendant, and complained of in said bill of complaint was made in accordance with and in reliance upon the doctrine respecting the appropriation of the water of the natural streams for irrigation and other beneficial uses which, by usage and custom prevailed in the arid region of the United States at the time of said appropriation, and which, by the recognition and approval of the United States, has at all times been the law applicable to the public lands in said arid region.

2. Prior to the acquisition of private title to any of the lands acquired by the general government from France, Mexico and Texas by purchase, cession and annexation, respectively, comprising all the lands now within the jurisdiction of the United States between the Mississippi river and the Pacific coast, said general government caused said lands to be explored and reported upon for the purpose of ascertaining the natural resources and the physical and climatic characteristics of the various portions thereof, and by said explorations and information obtained from time to time, it become known to the United States and the inhabitants thereof that from about the 97th Meridian to the coast range of the Pacific slope, the land was an arid waste without timber of useful vegetation, except in the mountains, and that although the soil was rich and fertile, and great

deposits of gold, silver and other valuable minerals existed therein, the soil could not be made productive nor the minerals extracted, nor could the land be inhabited, except by the diversion of water from the natural streams and the application thereof to agricultural and mining uses, and that in that portion of said domain which lay south of the Arkansas river, and which had formerly been a part of Mexico, the laws, customs and usages there prevailing authorized and sanctioned the diversion and use of water for agricultural and other useful purposes in contravention of any right of the riparian owner to have such water continually flow in its natural channel.

3. With the earliest settlement in said arid region for agricultural and mining purposes, which was long prior to the opening of said lands to preemption and purchase, by necessity, common consent and uniform practice, the doctrine obtained that the waters of all the natural streams flowing through said arid region were subject to diversion and use for agricultural and mining purposes, and that the right to the water thus diverted could be obtained both as against the United States as the owner of the public lands and all grantees of the United States of lands lying along said streams, and that the right of the several appropriators from any given stream should be in the order of diversion and use, the first in time being first in right, and said doctrine has at all times been and now is the customary and statute law of said arid region in respect to the natural streams thereof.

With knowledge and in recognition of such right

and custom of the inhabitants of such arid region to divert waters, and to apply the same to beneficial and necessary uses, the United States, in its treaty with Spain of February 22d, 1819, and afterwards in its treaty of January 12th, 1828, with the United Mexican States, expressly stipulated and provided, that the use of the waters of the Arkansas river, and of certain other boundary streams should be common to the respective inhabitants of both nations, parties to such treaties respectively.

4. Upon the creation and admission of the several territories and states of said arid region, including Kansas, both as a territory and state, they recognized, approved and confirmed, and from thence hitherto have enforeced said doctrine, and rights to water by diversion from the streams of said arid region have been maintained as against all claims of riparian rights in conflict therewith.

5. The government of the United States, long prior to the sale by it of any of the public lands in the Arkansas valley, recognized and approved said doctrine, and applied the same to said public lands, and renounced and surrendered all riparian rights which it might have asserted in contravention of said doctrine, and from thence hitherto has held and disposed of said lands subject to and in accordance with said doctrine, and has at all times encouraged and promoted the diversion and use of the water of the streams in said arid region for agricultural and mining purposes, and by grants of public money has aided in the construction of canals, ditches and reservoirs and other appliances for the diversion, storage and use of water, in the reclamation and cultivation of the public lands.

6. By an act of Congress, approved September 4, 1841, and by subsequent acts relating thereto, the public lands, including the lands in said arid region were declared subject to pre-emption and homestead purchase, and all persons desiring to avail themselves of the provisions of said acts were required to make a settlement upon the land in person and to inhabit and improve the same. It was then, and at all times since has been well known to the general government, and particularly to Congress and the executive departments having in charge the administration of said acts, that the provisions thereof in respect to settlement, inhabitancy and improvement could not be complied with in the pre-emption and purchase of arid lands, except by the diversion of the waters of the streams upon the public lands and the application thereof to domestic and irrigation purposes in reliance upon the continuance of the right so to do in accordance with said doctrine of appropriation.

7. By means of the diversion and use of the waters of said natural streams, many million acres of the public lands in said arid region have been settled upon, inhabited and improved and title thereto obtained from the general government; in the belief that by its action and conduct in the disposition of its public lands, the United States had accepted and applied to said public lands the doctrine of appropriation as hereinbefore set forth; and there has been paid to said general government, on account of said lands so improved by the diversion and use of water in accordance with said doctrine, upwards of twenty million dollars, and all of the lands in the valley of

the Arkansas in the State of Colorado, save and except certain Indian lands, were settled upon and patents therefor obtained by proof of the diversion and use of the waters of said Arkansas river in the reclamation and improvement of said lands, said diversions so made being those complained of and sought to be enjoined in and by the bill of complaint herein.

8. The territory of Kansas by its legislature, recognized and approved the said doctrine of appropriation, and in pursuance thereof in 1859 authorized The St. Charles Town Company to divert the waters of the South Platte river and Cherry creek, and The Mountain Company to divert the waters of the Platte river, and The El Paso Town Company to divert the waters of the tributaries of the Arkansas river heading at Pike's Peak; and in 1860 authorized The Capital Hydraulic Company to divert for irrigation purposes all the waters of the South Platte river and Cherry creek. And the State of Kansas, by its legislature, has also recognized, approved and adopted said doctrine; an act of said legislature enacted in 1868, authorizing corporations to construct canals diverting water for irrigation purposes; an act of the legislature enacted in 1886 providing that the running waters of the state might be appropriated for purposes of irrigation; an act of said legislature enacted in 1891, providing that in all that portion of the state west of the 99th Meridian all natural waters, whether standing or running and whether surface or subterranean, should be devoted first, to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses; and, sec-

ond, to other industrial purposes, and might be diverted from natural beds, basins or channels for such purposes and uses; and another act enacted in 1895 providing for the development of the land west of the 98th Meridian by irrigation and regulating the distribution of water in the same manner as in Colorado. Said state by said several acts renouncing and surrendering all rights it may have had in said river or the lands adjacent thereto as riparian owner in contravention of the right to divert the waters thereof for irrigation in Kansas or Colorado.

And in reliance upon the approval and adoption of said doctrine of appropriation by said State of Kansas, about five hundred miles of large canals and ditches have been constructed in Kansas, west of the 97th Meridian at a cost approximating two million dollars and thereby the waters of said Arkansas river have been appropriated and applied to about one hundred and fifty thousand acres of land in the valley of said river, in the State of Kansas.

9. By the act of Congress approved January 29th, 1861, admitting Kansas into the Union, it was specifically provided that the State should never interfere with the primary disposal of the soil within the same by the United States, or with any regulations Congress might find necessary for securing the title in said soil to bona fide purchasers thereof, and that all laws of the United States not locally inapplicable should have the same force and effect within said State as in other States of the Union.

10. Following the admission into the Union of the State of Kansas, said doctrine of appropriation was further recognized by Congress as the law ap-

plicable to the public lands and the natural streams thereof, including those in the State of Kansas, by the following acts:

An act approved July 26, 1866, by which it was provided that whenever, by priority of possession, rights to the use of water for mining, manufacturing or other purposes, have accrued and are recognized according to local customs, laws and decisions, the owners and possessors shall be maintained and protected in their rights;

An act approved July 9, 1870, in which it was provided that all patents granted, or pre-emptions or homesteads allowed, should be subject to any vested and acquired water rights or rights to ditches and reservoirs used in connection with such water rights;

An act approved March 3, 1877, known as "The Desert Land Act," which declared that all waters of all lakes, reservoirs and other sources of supply upon the public land should remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes, and in and by which it was also provided that by the construction of canals and ditches and the application of said waters to the irrigation of the public lands, the title to said lands might thereby be obtained from the United States;

An act approved March 3, 1891, confirming the rights of way over the public lands in the arid region for canals and reservoirs for irrigation purposes;

An act approved August 18, 1894, providing for the conveyance to the several states in the arid region of such public lands as they might reclaim and irrigate;

An act approved June 17, 1902, authorizing and undertaking the construction of canals, ditches and reservoirs in the arid region, including therein the State of Colorado and the western portion of Kansas, whereby the waters of the public lands might be diverted and used for irrigation purposes, and appropriating for that purpose the proceeds of all moneys received from the sale of public lands in the States of Colorado and Kansas.

Under and by virtue of said act approved March 3, 1877, which was made applicable to lands in Colorado by an act approved March 3, 1891, several thousand acres of land in the Arkansas valley in the state of Colorado, were reclaimed and irrigated, and the diversions of water for said purposes are in part the diversions complained of in the said bill of complaint.

11. Said doctrine was further recognized by Congress by the appropriation, on October 2d, 1888, of $229,000 for the purpose of investigating the extent to which the arid region of the United States might be redeemed by irrigation and for the segregation of the irrigable lands in such arid region, and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of water for irrigation, and also by a further appropriation made on March 2d, 1889, of $450,000 for the like purpose, all of which moneys were expended in investigating and selecting reservoir sites and in running contour lines for the purpose of aiding and assisting those desiring to appropriate the waters of the natural streams and using the same for irrigating purposes.

12. The provisions of the Constitution of the state of Colorado set forth and complained of in the bill of complaint, were adopted in harmony with and in pursuance of the policy of the United States in respect to the diversion and use of water in the irrigation of land, and the same do not conflict with or contravene any act of Congress bearing upon said appropriation and use, but, on the contrary, are intended as a constitutional guaranty that the right to divert water for beneficial purposes as authorized and encouraged by the acts of Congress referred to shall never be denied, and said provisions were accepted and approved by the action of Congress in admitting Colorado into the Union, and the several acts of the legislature of Colorado, referred to in said bill of complaint, have been enacted for the purpose of protecting and regulating appropriations made in pursuance of the usages and customs prevailing in the arid region and the rights of appropriation as recognized and confirmed by the acts of Congress referred to.

13. All grants and patents of land in the valley of the Arkansas, in the State of Kansas, were made by the United States, subject to the doctrine of appropriation heretofore set forth, and were accepted by the several grantees thereof with the knowledge that in the sale and disposition of the arid lands of the United States along said Arkansas river west of the 97th Meridian, it had been and would be necessary to divert and use the waters of said river in the improvement and cultivation thereof, and said grants and patents of lands in the State of Kansas were made subject to the right of all persons desiring the

use of the same for agricultural purposes to appropriate the waters of the Arkansas river, either in Kansas or Colorado, to the full extent of said river, and all patents granted and all pre-emptions and homesteads allowed of lands in the valley of the Arkansas in the state of Kansas subsequent to July 9th, 1870, including in particular the lands described in the bill of complaint situated in Ford County, conveyed to said state of Kansas by the United States on the 13th day of June, 1889, and the lands in Reno County described in said bill of complaint conveyed to the said state of Kansas at divers times subsequent to said 9th day of July, 1870, were, by the act of Congress of July 9th, 1870, made subject to all water rights in said river and rights of ditches and reservoirs in connection therewith acquired in accordance with the local customs, laws and decisions of Colorado.

III.

This defendant for further answer saith,

That at all times, the State of Kansas, and the inhabitants thereof, well knew that, commencing in said state at about the 97th Meridian, and thence continuing westward to the Rocky Mountains, the land was arid and incapable of being settled upon or cultivated, except by the diversion and use of the waters of the natural streams, and that diversions of the waters of the Arkansas River were being made for the purpose hereinbefore set forth, and that such diversions were made under a claim of right to the continued use of the waters of said river as against all owners of land in the valley of the Arkansas throughout its entire length, and that the settlement of said valley in the state of Colorado and the expenditure of amounts aggregating many millions of dollars in the construction of canals, ditches and reservoirs, and in lands, buildings and improvements, and in houses, stores, factories, and public and private buildings, was made in reliance upon the right to divert the waters of said river and to continue such diversion in prepetuity.

Prior to the filing of the bill of complaint herein, neither the state of Kansas, nor the owners of lands in the Arkansas valley in said state, complained of said diversions, nor the right to make or continue the same, nor in any way or manner claimed or alleged any right upon the part of said State, or the owners of land in said valley, to the flow of said river as it had been accustomed to flow prior to the making of said

appropriations; but, on the contrary, the said state approved the diversion of water from said river and affirmed the right to make the same in the reclamation and irrigation of the lands along said river, by an act of the legislature of said state, enacted in 1886, authorizing and providing for the like diversion and use of the waters of said river in the State of Kansas, and by a further act, enacted in 1891, declaring that in that portion of the state of Kansas west of the 99th Meridian all natural waters, whether running or standing, and whether surface or subterranean, should be devoted, first, to the purposes of irrigation in aid of agriculture; and, second, to other industrial purposes, and that said waters might be diverted from natural beds and channels for such purposes and use, and the owners of land in said valley in said state recognized and approved said appropriations, and the right to continue the same, by themselves constructing about five hundred miles of canals and ditches, and diverting the waters of said river for the irrigation of about one hundred and fifty thousand acres of land, and claimed the right so to do as against all owners of lands along the course of said river in Kansas or elsewhere.

The said state of Kansas and the owners of land in the valley of the Arkansas, in said State, have at all times acquiscied in the approriation of the waters of the Arkansas river in the state of Colorado, and have waived, surrendered and relinquished any and all riparian rights now claimed by them, and by their delay in the filing of the complaint herein have caused the several appropriators of water from said river in Colorado to make the expenditures herein-

before mentioned, and the people in said valley to settle upon, improve and cultivate the lands, and to build towns and cities, and for that purpose to expend the sums hereinbefore mentioned; and they are now estopped, by their conduct and delay, from asserting or maintaining any of the rights claimed in the said bill of complaint, and each and every owner of land in said valley in the state of Kansas who might claim rights adverse to the appropriations of water from said river in Colorado, are by the statutes of said state of Kansas barred from asserting such rights as against ditches and canals constructed and appropriations made in the state of Colorado fifteen years or more prior to the filing of the bill herein.

This defendant, now having fully answered all the allegations in the plaintiff's amended bill of complaint, or so much thereof as the defendant is advised should be answered, asks to be hence dismissed with its cost and charges in this behalf sustained.

Thos. F. Garrett,
H. L. Lindsey,

Solictiors for the Fort Lyon Canal Company, Defendant.

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IN THE

SUPREME COURT

OF THE

UNITED STATES

THE STATE OF KANSAS,
Complainant,

vs.

THE STATE OF COLORADO, THE ARKANSAS VALLEY SUGAR BEET AND IRRIGATED LAND COMPANY ET AL.,
Defendants.

3 Orig'l.
O. T. 1906

Original Proceeding
No. 8

SEPARATE ANSWER OF THE ARKANSAS VALLEY SUGAR BEET AND IRRIGATED LAND COMPANY, ONE OF THE DEFENDANTS, TO THE AMENDED BILL OF COMPLAINT OF THE STATE OF KANSAS.

PLATT ROGERS,
JOHN F. SHAFROTH,
FRANK E. GREGG,
THOMAS H. DEVINE,
HENRY A. DUBBS,
Solicitors of The Arkansas Valley Sugar Beet and Irrigated Land Company.

IN THE

SUPREME COURT

OF THE

UNITED STATES

THE STATE OF KANSAS, *Complainant,* vs. THE STATE OF COLORADO, THE ARKANSAS VALLEY SUGAR BEET AND IRRIGATED LAND COMPANY ET AL., *Defendants.*	Original Proceeding No. 7. October Term, 1903.

SEPARATE ANSWER OF THE ARKANSAS VALLEY SUGAR BEET AND IRRIGATED LAND COMPANY, ONE OF THE DEFENDANTS, TO THE AMENDED BILL OF COMPLAINT OF THE STATE OF KANSAS, COMPLAINANT.

I.

This defendant, now and at all times hereafter saving to itself all and all manner of benefit or advantage of exception or otherwise that can or may be had or taken to the many errors, uncertainties and imperfections in the

said bill contained, for answer thereto, or to so much thereof as this defendant is advised it is material or necessary for it to make answer to, answering, saith:

1. This defendant admits that the rise, course, drainage area and general physical characteristics of the Arkansas River and of the valley thereof, except as hereinafter set forth, are as stated in said amended bill of complaint.

2. This defendant denies that the said Arkansas River is in fact, or within the laws or departmental rules and regulations of the United States, a navigable stream either within the State of Colorado or the State of Kansas.

3. This defendant denies that any diminution of the flow of said river from the State of Colorado into the State of Kansas is wholly or mainly attributable to the diversion of the waters of said river in the State of Colorado; and denies that the normal flow of said river at the state line, in the absence of irrigation, for ten months, or for any considerable period during the year, is upward of two thousand cubic feet per second, or any amount in excess of five hundred cubic feet per second.

4. This defendant admits that the ordinary and usual rainfall in the valley of said river west of the 98th Meridian is inadequate for the growing and maturing of cultivated crops; and alleges that in that portion of the State of Kansas, the inhabitants thereof have resorted to and are now practicing the method of appropriating the water from said river and using the same for the irrigation of lands that for more than forty years has been practiced in the State of Colorado.

5. This defendant denies that from time immemo-

rial, or at all, the waters of said river have flowed through underlying sand and gravel extending in width under the entire valley of the Arkansas River or any material portion thereof; and denies that any part of the course and flow of said river is beneath the surface of the bottom lands of the valley, or that the course or flow thereof is of any greater width than the channel of said river between its banks, or that there is any underflow of water co-extensive with the valley of said river passing from the State of Colorado into the State of Kansas or in or through said State of Kansas; and this defendant denies that the alleged underground waters of said river furnish sufficient moisture to grow ordinary farming crops in the absence of rainfall, unless supplemented by water applied by a system of irrigation such as is in use in Colorado and in the western part of Kansas.

6. This defendant denies that the flow of the river or the underground waters to any appreciable extent tends to cool or moisten the surrounding atmosphere, promote the growth of vegetation, enhance the value of lands or conduce directly or materially to the public health or the habitability of the valley; and alleges that such results throughout the arid and semi-arid portions of Kansas can only be produced by the diversion of water from the river and the application of the same by a system of irrigation to the adjoining lands, and the cultivation thereof.

7. This defendant denies that the value of the lands in the valley of the Arkansas in said State of Kansas is in any degree dependent upon the natural and normal flow of water in said river; and denies that the acts alleged to have been done by this defendant are wrongful; and denies that by reason of said alleged wrongs, or other-

wise, the value of lands in the valley of the Arkansas River in the State of Kansas has been diminished in any sum whatever, or that the revenue of the State of Kansas arising therefrom has been or will be in any wise injuriously affected.

8. This defendant admits the acquisition by the State of Kansas of the lands mentioned in said bill of complaint and the conveyance of certain portions thereof to the grantees mentioned therein; and alleges that all of said lands so acquired by said State of Kansas and held by its grantees, as well as all lands acquired by settlers by homestead, pre-emption or purchase, were at all times, and now are, subject to the riparian rights of other proprietors of lands in the valley of the Arkansas higher up said stream and to the right of other proprietors of land in said valley to appropriate the waters of said river and use the same in the irrigation thereof both in Colorado and western Kansas.

9. This defendant denies that the Arkansas River is now, or at any time has been, a navigable river in the State of Kansas or treated as such, or that the title to the bed of said river in the State of Kansas ever passed to said state, or that said state now is or ever has been the owner thereof or entitled to the control thereof, or has ever attempted to control the same save and except as by an act of the Legislature of the State of Kansas, passed in 1886, it declared that the right to the use of running water flowing in a river or stream of Kansas, for the purposes of irrigation, might be acquired by appropriation; and by a like act, passed in 1891, declared that in that portion of the state west of the 99th Meridian, all natural waters, standing or running, should be devoted first to purposes

of irrigation in aid of agriculture, subject to ordinary domestic uses; and secondly, to other industrial uses, and that the same might be diverted from the natural beds, basins or channels for such purposes and uses; and as, by a like act subsequently passed, it enlarged and extended the right to use the natural waters of said state for irrigation purposes eastward to the 98th Meridian.

10. This defendant has no knowledge of the several conveyances or grants of land in the valley of said river in the State of Kansas heretofore made by the Government of the United States, except as hereinafter set forth, and avers that all of the conveyances or grants referred to in said bill of complaint, including in particular the lands alleged to be owned by said State of Kansas, were made subject to all rights to water from said river for irrigation purposes theretofore and thereafter to be acquired, and were taken with full knowledge on the part of said State of Kansas, and by each and every grantee of said lands, that the waters of said river had been, were being and would be appropriated in the State of Colorado for beneficial uses in the irrigation of land, and that the lands in said valley in the State of Kansas west of the 98th Meridian and in the State of Colorado could only be made available for agricultural purposes by like appropriation and use, and that the Government of the United States, as the primary owner of said lands, had assumed that it held the same subject to the appropriation of the waters of said river for irrigation purposes, and that all patents of land granted after July 9th, 1870, should be subject to all vested and acquired water rights in or over said river.

11. This defendant denies that the lands alleged in

said bill of complaint to belong to the State of Kansas and situated in the counties of Ford and Reno depend for their value for farming purposes upon the flow of water in the bed of said river or upon the underflow beneath said land, or that they are entitled to the full, free and natural flow of said waters which would naturally flow in said river to or beneath said land; and denies that the rights of the State of Kansas as the owner thereof are prior or superior to the rights of this defendant or of the lands irrigated by its several ditches and canals as hereinafter more particularly set forth.

12. This defendant denies that the diversion of the waters of the Arkansas River by this defendant and the use thereof in the irrigation of the lands lying under its several ditches and canals in any degree whatever diminishes the ordinary and usual flow of water in said State of Kansas, and on the contrary alleges that as a result of irrigation in the valley of the Arkansas in the State of Colorado, the lands irrigated act as reservoirs for the storage of the ordinary and usual flow of said river and of the flood and storm waters thereof, returning the waters not used by plant life or lost by evaporation to the bed of the river by the natural and ordinary process common to lands having abundant rainfall, and the average flow of water into said State of Kansas, outside of flood and storm periods, is thereby increased instead of diminished.

13. This defendant denies that it is carrying any of the waters of said river through its ditches or canals to lands not riparian to said river in the sense given to the word "riparian" in the bill of complaint, and alleges that all of the lands under its said ditches and canals are within the water shed of said river.

14. This defendant denies that when the Territory of Kansas was created or the State of Kansas admitted to the Union, the water of said Arkansas River was wholly unappropriated, or that the common law and the riparian rights claimed in said bill of complaint extended over said valley in the State of Kansas, or that the owners of lands along said river were entitled to the unimpeded flow of the water of said river; but on the contrary avers that numerous appropriations of said water had been made for irrigation purposes long prior to the creation of said Territory and many more were made prior to the conveyance by the Government of the United States of any of the lands lying along or adjacent to said river, and that the necessity and right to divert the water of said river for the reclamation of arid land had, long previous to the creation of said territory, been asserted and exercised by persons in possession of said lands, and said necessity and right were thereafter recognized by the Legislature of the Territory of Kansas, and all lands along said river acquired by the State of Kansas, or by individuals or corporations within the Territory or State of Kansas, were taken and held with full knowledge of the climatic conditions which made necessary the diversion of the waters of said river west of the 98th Meridian, and that appropriations had been, were being and would be made west of the 98th Meridian within the States of Kansas and Colorado, and that to the extent of said appropriations the flow of water of said river might, by the laws, usages and customs then prevailing, be lawfully impeded.

15. This defendant denies that by its taking of water from said river in the State of Colorado through its canals and ditches, and the use thereof in the irriga-

tion of lands lying thereunder, the State of Kansas, or any of its citizens, or the owners of land along said river in the State of Kansas, have been injured in any degree whatever, or that the fertility of the lands or the use thereof to the fullest extent to which the same are naturally capable of use, have been diminished or impaired, or that the crops, trees and vegetation growing along said river have perished or will perish, or that the wells have become or will become dry, or that the salubrity or healthfulness of said valley, or of the lands adjacent to said river, have been or will be impaired.

II.

THIS DEFENDANT, FOR FURTHER ANSWER AND DEFENSE TO SAID AMENDED BILL OF COMPLAINT, SAYS:

1. In the year 1882, The Arkansas Valley Land and Cattle Company, a corporation, became the owner in fee simple of a tract of land containing about eleven thousand, four hundred and fifty-five acres, lying along and including the north bank of the Arkansas River and in part including the bed thereof, commencing at the line between the states of Colorado and Kansas and ending at Big Sandy Creek, a distance following said river of about twenty-six miles, and extending north from said river from one-half mile to three miles, said tract of land extending continuously through Townships 41, 42, 43, 44 and 45 West of the Sixth Principal Meridian.

2. Said tract of land, in its natural condition, was barren and unproductive, the ordinary rainfall being insufficient to make crops or to render the land available for agricultural purposes.

3. Between the 29th of September, 1884, and the

1st of May, 1885, said The Arkansas Valley Land and Cattle Company constructed a canal then called and ever since known as the Buffalo Canal, of a carrying capacity of about 100 cubic feet of water per second, beginning at a point on the north bank of the Arkansas River in the Northwest Quarter of the Northwest Quarter (N.W.N.W.) of Section Thirty-one (31), Township Twenty-two (22), South Range Forty-three (43) West, and running thence East and South of East to the state line, a distance of about eighteen miles; said canal being so constructed as to cover the tract of land above described and to furnish water from the Arkansas River for use upon the same in the watering of cattle, the irrigation of the soil, the raising of crops and other domestic uses; and from the time of the construction of said canal until the bringing of this action the waters of said Arkansas River have been diverted through said canal and used upon said tract of land for the purposes above mentioned.

4. At the point of termination of said Buffalo Canal near the state line, which is about one and one-half miles north of the north bank of the Arkansas River, certain citizens and residents of the State of Kansas, after the completion of said Buffalo Canal, continued said canal into the State of Kansas a distance of six miles for the purpose of conveying such portion of the waters carried in said canal as were not used in the State of Colorado to the following described riparian and non-riparian lands in the State of Kansas, to-wit: The South Half of the South Half of the North Half (S.½ S.½ N.½) and the North Half of the South Half (N.½ S.½) of Section Twenty-two (22), the North Half of the South Half (N.½ S.½) of Section Twenty-three (23), the South Half (S.½)

of Section Twenty-four (24) and that part of the Northeast Quarter (N.E.¼) of Section Twenty-five (25) lying north of the Arkansas River, all in Township Twenty-three (23), South Range Forty-three (43) West; the South Half of the North Half (S.½ N.½) and the South Half (S.½) of Section Twenty (20), the Southwest Quarter (S. W.¼) of Section Twenty-one (21), the North Half (N.½) and a portion of the Southwest Quarter (S.W.¼) of Section Twenty-eight (28) lying north of said Arkansas River; all of Section Twenty-nine (29), the North Half (N.½) and the Northeast Quarter of the Southeast Quarter (N.E.¼ S.E.¼) of Section Thirty (30), all in Township Twenty-three (23), South Range Forty-two (42) West; and from thence at all times hitherto the waters of said canal have been used in the irrigation and cultivation of said lands, said ditch so constructed and used being called and known as the Frontier or Pioneer Ditch; said lands so irrigated thereby being, at the time of this action and still, owned by Harry Crittenden, T. B. Martin, Frank Crittenden, William Snavely, John Tomilson, Charles Woolman, Fred Pomeroy, John Schranstrom, William Rich, David Hess and John Donahue, all citizens and residents of the State of Kansas and, as hereafter shown, necessary parties plaintiff in this proceeding.

6. The defendant further says that after the first settlements were made in eastern Kansas for farming purposes, it was a prevalent belief for many years that the area of rainfall sufficient for the cultivation of crops moved westward with the cultivation of the land, and about the year 1882 it was generally claimed that the area of rainfall sufficient for the growth of crops had moved so far westward as to cover western Kansas and to extend

thirty or forty miles into the State of Colorado. Acting under this belief, the country on both sides of the Arkansas River in Kansas, extending far back on the "Great Plains" and also extending into Colorado as far as the present town of Lamar, was taken up by settlers, acquiring title either from the Government of the United States by homestead or pre-emption, or from the owners of the lands granted to the State of Kansas and by said state conveyed to The Atchison, Topeka & Santa Fe Railroad Company. Residences and farm buildings were erected, school districts were established and school houses built and a comparatively large population was established on the lands extending from the 100th to the 103rd Meridian, and particularly in the neighborhood of the line between the states of Colorado and Kansas. Following the year 1882 and continuing for several years there was a constant failure of crops due to insufficient rainfall, and a large part of the population referred to gradually moved out of the country. The people of the State of Kansas about 1886, realized that the lands so settled upon were so destitute of moisture and the rainfall was so slight as to render them incapable of being cultivated, and that only by the diversion and application of the waters of the Arkansas River could agriculture be pursued in western Kansas and eastern Colorado. Thereupon the legislature of the State of Kansas, for the purpose of allowing and authorizing the diversion and use of the waters of said river for the purpose of reclaiming said lands, so far as situated in said State of Kansas, at its session in 1886 passed an act concerning irrigation, in which it was declared that "the right to the use of running water flowing in a river or

stream in this state, for the purposes of irrigation, may be acquired by appropriation."

7. In reliance upon said act of the legislature of the State of Kansas and upon the laws, customs and usages prevailing in the State of Colorado respecting the diversion and use of water for agricultural purposes, there was constructed a certain ditch or canal then called and since known as the Amity Canal, commencing on the north bank of the Arkansas River in the Northwest Quarter of the Southwest Quarter (N.W.S.W.) of Section Thirty-six (36), near the line between the North Half and the South Half of said section in Township Twenty-two (22) South, Range Forty-eight (48) West, and thence continuing in a general easterly direction through Townships Forty-seven (47), Forty-six (46), Forty-five (45), Forty-four (44), Forty-three (43), Forty-two (42) and Forty-one (41) West, and ending, in the year 1895, at a point in the County of Hamilton in the State of Kansas about thirty miles east of the state line,—a total length of about one hundred and ten miles. Said canal was of a carrying capacity of 302.9 cubic feet per second of time and was constructed for the purpose of furnishing water for irrigation and domestic uses on the lands lying under said canal in the States of Colorado and Kansas. The owners of said canal acquired and owned in fee simple nearly all the land lying under said canal and capable of being irrigated therefrom, both in Colorado and Kansas.

8. About the time of the construction of said Amity Canal in the year 1887, numerous other ditches or canals were constructed in the counties of Hamilton, Kearney, Finney, Gray, Ford, Edwards, Pawnee and Barton in the

State of Kansas, for the diversion of the surface and underflow waters of said Arkansas River and the application of said waters to riparian and non-riparian lands in the valley of the Arkansas in the irrigation and cultivation thereof, and in particular to lands contiguous to the towns of Syracuse, Garden City, Cimmarron, Dodge City, Kinsley, Larned and Great Bend, owned by the persons, citizens and residents of Kansas whose alleged rights are claimed by the bill of complaint herein to have been impaired by the diversion of the waters of said river in Colorado by this defendant and others.

Among other canals so constructed was the canal known as the Dodge City Canal, covering the land in the County of Ford alleged in the bill of complaint to have been conveyed in 1889 to the State of Kansas by the Government of the United States to be used as a Soldiers' Home, said canal also covering land lying north of and abutting upon said river for a distance of about thirty miles. Said land of the State of Kansas in Ford County was also covered by another ditch or canal constructed by the Kansas Water Works and Irrigating Company, a corporation organized and existing under the laws of the State of Kansas then called and since known as the Eureka Canal, commencing near the town of Ingalls in the Southeast corner of Township 25 South, Range 29, and extending thence a distance of about ninety miles,covering all the riparian and a large part of the non-riparian lands along said river in Township 26 South, and Ranges 21, 22, 23, 24, 25, 26, 27 and 28 West, and Township 27 South, Ranges 21, 22, 23 and 24 West, said lands being owned by citizens and residents of Kansas whose names are to this defendant unknown.

There was also constructed by The South Dodge Canal Company, a corporation organized and existing under the laws of the State of Kansas, a certain other ditch or canal on the south side of said river known as and called the South Dodge Canal, covering the riparian lands of said river opposite the lands belonging to said State of Kansas; said canal commencing at or near the center of Township 26 South, Range 26 West, and extending thence eastward about fifteen miles and covering riparian and non-riparian lands, in Townships 26 and 27 South, Ranges 24, 25 and 26 West, said lands being owned by citizens and residents of Kansas whose names are to this defendant unknown.

This defendant further says that following the construction of said Amity Canal, the following ditches and canals were constructed diverting the surface or underflow waters of said river, in the State of Kansas, to wit:

IN THE COUNTY OF HAMILTON.

A certain canal known as the Alamo Canal, commencing on the north bank of said river near the center of said County and thence continuing to the east line of said county; said canal covering the lands north of and abutting upon said river in Township 24 South, Ranges 39, 40 and 41 West, said canal now being owned by the Alamo Irrigating Canal Company, a corporation organized and existing under and by virtue of the laws of the State of Kansas, and said lands covered thereby being owned in part by John E. Frost, J. V. Pratt, W. F. Reed, James Gates, W. J Martindale, D. A. Monroe, L. C. Price and others, all residents and citizens of Kansas, who have, as defendant is informed, at all times when water was obtainable

through said canal, used the same in the irrigation of said lands.

Also a certain canal known as the Occidental Canal, commencing on the north bank of said river 5½ miles west of the town of Syracuse and thence continuing for 3½ miles eastward and carrying water for irrigation to lands in Sections 9, 10 and 11 in Township 24 South, Range 41 West, being the lands lying on the north bank of and abutting on said river, said lands now being owned by B. J. Woodley, L. Inge and L. T. Worden, all citizens and residents of Kansas.

Also a certain canal known as the Alameda Canal, commencing on the north bank of said river 3½ miles west of the town of Syracuse and thence continuing eastward a distance of 4½ miles and carrying water for the irrigation of lands in Sections 16, 17 and 18 in Township 24 South, Range 40 West, and Section 12, Township 24 South, Range 41 West, said lands now being owned by C. F. Roe, E. J. Barber, Ben A. Wood, M. J. Clark, A. L. Huffman, Henry Packer and W. J. Parnell, all citizens and residents of Kansas.

Also a certain ditch or canal known as the Ford Ditch, commencing on the south side of said river about 3 miles east of Syracuse and covering riparian and non-riparian lands south of said river, the amount and ownership of which is to this defendant unknown.

Also a certain ditch known as the Prosperity Ditch, beginning on the south side of said river 6 miles east of Syracuse and thence continuing eastward 3½ miles and covering riparian and non-riparian lands lying south of said

river, the amount and ownership of which is to this defendant unknown.

In the County of Kearney.

A certain canal called and known as the Amazon Canal, commencing on the north side of said river about five miles west of the town of Hartland and thence continuing in a northeasterly direction a distance of about 54 miles and carrying water for the irrigation of riparian and non-riparian land lying along and north of said Arkansas River in Township 25 South, Range 37 West, and Township 24 South, Range 36 West, and Townships 23 and 24 South, Range 35 West, and Township 23 South, Range 34 West, said lands belonging to citizens and residents of Kansas whose names are to this defendant unknown.

Also a certain ditch known as and called the Great Eastern Ditch, commencing on the north side of said river about ½ mile west of the town of Hartland and continuing thence eastward a short distance and carrying water for the irrigation of riparian and non-riparian lands north of said river, the amount and ownership of which is to this defendant unknown.

Also a certain ditch belonging to one A. L. Derlinger, a citizen and resident of Kansas, commencing on the south side of said river about 5 miles west of Hartland and continuing thence about 4½ miles, covering the lands of said Derlinger on the south side of said river, the amount of said land being to this defendant unknown.

Also a certain ditch known as the Lakin or South Side Ditch, beginning on the south side of said river 2 miles west of the town of Hartland and thence continuing a dis-

tance of 25 miles and carrying water for the irrigation of lands lying in Township 25 South, Ranges 35, 36 and 37 West, belonging to citizens and residents of Kansas whose names are to this defendant unknown.

In the County of Finney.

A certain Ditch or Canal known as the Kansas City or Farmers' Ditch, owned by the Finney County Farmers' Irrigating Company, a corporation organized and existing under the laws of the State of Kansas, commencing on the north side of said river 10 miles east of the town of Lakin and thence continuing in a northeasterly direction for about thirty miles and carrying water to riparian and non-riparian lands in Townships 23 and 24 South, Ranges 32, 33 and 34 West, the amount and ownership of said land being to this defendant unknown.

Also a certain ditch or canal known as the Garden City Ditch, commencing on the north side of said river 4 miles west of Garden City and thence continuing eastward and carrying water to lands lying in and about Garden City in Township 24 South, Ranges 31, 32 and 33 West, the amount and ownership of said land being to this defendant unknown.

In the County of Gray.

A certain ditch or canal known as the Soule Ditch, beginning on the north side of said river 2 miles west of the town of Ingalls and thence continuing eastward about 20 miles and carrying water to riparian and non-riparian lands in Township 27 South, Ranges 27 and 28 West, the amount and ownership of said lands being to this defendant unknown.

Also a certain ditch known as the Ranger Ditch, commencing on the south side of said river about 3 miles west of the town of Ingalls and thence continuing eastward and irrigating lands, the amount and ownership of which is to this defendant unknown.

Also a certain ditch or canal known as the Economy Ditch, commencing on the south side of said river below the town of Ingalls and thence continuing eastwardly a distance of about 5¾ miles and carrying water to about 100 acres of riparian land, the ownership of which is to this defendant unknown.

This defendant further alleges that certain other ditches and canals were constructed in the counties of Edwards and Pawnee, diverting water for the irrigation of riparian and non-riparian land, the names of which and the lands irrigated thereby this defendant has been unable to ascertain.

9. All of the ditches and canals above mentioned, as this defendant is informed and believes, have diverted and carried water for the irrigation of the lands lying thereunder when obtainable, and the owners of said lands have used the waters so diverted in the irrigation and cultivation thereof, and have at all times disclaimed and renounced any and all rights they might have to the continuous flow of the surface or underflow waters of said Arkansas River in contraversion of the right to divert and apply the same to the irrigation of riparian and non-riparian lands in said valley, and the respective owners of said ditches and canals and of the riparian and non-riparian lands thereunder are, as this defendant respectfully suggests, necessary parties to any determination of the

right of this defendant to divert and use the waters of said river as it has been accustomed to do each and every year since and including the year 1887.

10. The construction of said Amity Canal and of other canals in Colorado, and of the said canals in Kansas, and the reclamation and cultivation thereby of the arid and semi-arid lands in said States of Colorado and Kansas, were well known to the owners of riparian and non-riparian land throughout the entire valley of the Arkansas in Kansas; detailed accounts of the same were published in all the papers issued in the various towns in said valley, and from time to time excursions were taken by many of the people of said valley to inspect and report upon the irrigation systems in vogue in Colorado and in particular the ditches in and about Rocky Ford and the ditches now owned by this defendant, and the owners of non-irrigable lands in said valley were constantly moving to and settling upon lands under said canals and ditches in Colorado and Kansas.

Commencing about the year 1886 and continuing at intervals to and including the year 1903, conventions of the owners of riparian and non-riparian lands in said valley, and of the citizens thereof, have been called and held at Garden City and at other towns and cities in said valley, to consider and devise methods for extending the system of irrigation used by the Amity and other canals in Colorado, and said canals in Kansas, and at said conventions full and complete reports of the progress of irrigation in the valley of the Arkansas in Colorado have been made and the taking of the waters of said Arkansas River by said canals in the State of Colorado has at all times been acquiesced in, approved and the right to do so confirmed.

11. On February 14, 1889, the Senate of the United States adopted a resolution that a special committee of seven Senators be appointed by the President of the Senate, to be known as the "Special Committee on the Irrigation and Reclamation of Arid Lands," whose duty it should be to consider the subject of irrigation and the best mode of reclaiming the public lands of the United States. Said committee was duly appointed and thereafter, in the month of September, 1889, held sessions at various points in the valley of the Arkansas River in Kansas to receive the statements of the own · of land and the citizens in said valley concerning irrigation. At the several sessions of said committee, many of said owners of lands and citizens were in attendance and it was represented by them that the larger part of said valley was uninhabitable and incapable of being cultivated except by the irrigation thereof; that the people had settled upon the lands in said valley and had taken up the same and had acquired title of the Government of the United States during a cycle of sufficient rainfall and in the belief that in paying to the Government of the United States the price of said lands they had obtained lands susceptible of cultivation and the raising of crops; that it had been found that the rainfall was insufficient to grow or mature crops; that many of those acquiring title from the Government had been compelled to leave the country, and that the remainder, while hopeful of being able to reclaim and cultivate a large portion of the riparian and non-riparian lands of said valley, were too poor to construct the necessary irrigation works. It was therefore urged that having received the price and value of said lands as lands capable of cultivation and being made productive, the Government was in duty bound

to assist in the exploration of the water supply of said valley and in the construction of works adapted to the irrigation of said lands. Constant reference was made to the ditches and canals that had been constructed in the State of Colorado and the diversion of the waters of the Arkansas thereby, and to the beneficial effect secured by the irrigation of lands in said State, but no objection or protest was made to such diversions of water, nor was any claim made that the water of said Arkansas River should continue to flow from the State of Colorado into the State of Kansas as it had formerly done, but on the contrary it was urged that the Government should build, or aid in building, reservoirs in the mountains in Colorado in which to impound and store the waters of said river that the same might thereafter be carried down said river for use in the irrigation of lands in Colorado and Kansas.

12. In September, 1891, a convention of irrigators and owners of lands in the arid and semi-arid regions west of the Missouri River was held at the City of Salt Lake in the then Territory of Utah, said convention being known as the "First Irrigation Congress." Delegates to said convention were sent by the Governor of Kansas and most of the delegates from Kansas were from the Arkansas Valley and were sent to and appeared in said convention as the special representatives of the owners of lands in said valley. Said delegates reported to the members of said convention the circumstances under which the lands in said valley had been taken up and the price paid therefor to the Government of the United States; that the Government had received for said lands an amount approximating six million dollars; that the land had been found to be unfit for cultivation or habitation without irrigation, and

the convention was urged by them to demand of the Government of the United States that it should encourage, promote and assist in the construction of the necessary irrigation works whereby to obtain water for the irrigation of the lands in said valley, and the platform adopted at said Irrigation Congress, known as the "Salt Lake Platform," was prepared at the instance and request of said delegation from Kansas, representing the views and wishes of all the owners of riparian and non-riparian lands in said valley of the Arkansas in Kansas, said platform being in part as follows:

"Whereas, Large areas of arid lands and semi-arid lands situated upon the great plains in the Dakotas, Western Nebraska, Kansas and Oklahoma were settled upon in good faith by homeseekers, under the supposition that they were obtaining agricultural lands;

"And whereas, The settlers upon such lands have expended much time and labor upon the same and paid into the United States Treasury therefor many millions of dollars, only to discover that irrigation, to a greater or less extent, is necessary in making homes for themselves theren;

"Therefore, be it resolved, That the representatives of all the states and territories directly concerned in irrigation, do hereby pledge their unwavering support to the just demands of such settlers that the general government shall donate at least a portion of the funds received from the sale of such lands toward the procurement of the means necessary for their irrigation."

At said convention reference was made by said delegates from Kansas to the irrigation works constructed at

Greeley, Rocky Ford and along the Arkansas River in Colorado, and the same was appealed to as a demonstration of what may be accomplished by irrigation, and it was urged that the like system should, by government aid, be applied in the valley of the Arkansas in Kansas, and it was further urged that the Government should make an irrigation survey of the lands in Kansas to aid those desiring to construct ditches or canals and to furnish information to all persons wishing to know the lines which might be followed by canals and ditches in said valley.

At subsequent meetings of said Irrigation Congress, held at Los Angeles in 1893 and in Denver in 1894, delegates representing the owners of lands in and the citizens of said valley were present, urging the support of said convention in the application of the people of said valley to the government for aid in the construction of irrigation works. In all of said conventions the demands of the delegates from the State of Kansas were acceded to and the Government of the United States was induced to and did make an irrigation or contour survey of the lands in the valley of the Arkansas for the purpose of aiding in the extension of the irrigable area thereof.

Said Irrigation Congress, at its session in Los Angeles elected Judge J. S. Emery, of the State of Kansas, its President, and immediately thereafter appointed him as lecturer on the subject of irrigation, and said Emery commencing immediately thereafter at various times addressed the citizens and owners of lands in said Arkansas Valley in Kansas and made known to them in detail the results of irrigation as practiced in Colorado by the use of the waters of the Arkansas River.

13. On March 10, 1891, the Legislature of the State of Kansas passed an Act providing for and regulating the diversion, appropriation, storage and distribution of waters for industrial purposes within prescribed limits, and the construction, maintenance and operation of works therefor, and therein and thereby provided that:

"In all that portion of the State of Kansas situated west of the 99th Meridian, all natural waters, whether standing or running, and whether surface or subterranean, shall be devoted first to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses, and secondly to other industrial purposes, and may be diverted from natural beds, basins or channels for such purposes and uses; provided that no such diversion shall interfere with, diminish or divest any prior vested right of appropriation for the same or a higher purpose than that for which such diversion is sought to be made, without a due legal condemnation of and compensation for the same."

In and by said Act certain provisions were adopted concerning the use and sale of waters diverted substantially the same as those theretofore in force in the State of Colorado; and thereafter by an Act passed by said Legislature in 1895, said statute was made applicable to all that portion of Kansas west of the 98th Meridian.

By another Act passed by said Legislature on March 5, 1895, a Board of Irrigation, Survey and Experiment was created, which was required to conduct experiments in irrigation in the state and appropriations in aid thereof were made by said Legislature.

By a subsequent Act passed by said Legislature, a Commissioner of Forestry and Irrigation was created and

an appropriation made for the maintenance of an experimental station at which demonstrations should be made of the methods and value of irrigation.

The Supreme Court of said State of Kansas, in the case of Koen vs. Kline, decided on the 6th day of July, 1901, declared that the Legislature of Kansas had by the acts above mentioned recognized the principle of irrigation in the State of Kansas and made the promotion of irrigation west of the 98th Meridian a public use.

14. Acting in reliance upon the laws, customs and usages thus prevailing in the State of Kansas respecting the diversion and use of the waters of said state, and in the belief that it was the desire and policy of said state, and of the inhabitants and the owners of lands in the valley of the Arkansas in said state, that the lands in said valley should be reclaimed and made fruitful and productive by irrigation, and that all claim of riparian rights contrary to or in derogation of the right to divert the waters of the said Arkansas river for irrigation purposes had been surrendered and relinquished by said state and by the several owners of lands in said valley, the owners of said Amity Canal, in the year 1895, acquired title to 121,522 acres of land lying north of and along said Arkansas River in the State of Kansas,—39,103 acres being situated in Hamilton County, 48,749 acres being situated in Kearney County, 1,857 acres being situated in Finney County and 11,812 acres being situated in Gray County; all of said lands being part of the lands alleged by the bill of complaint herein to have been granted to the State of Kansas to aid in the construction of certain railroads in said state, and thereafter conveyed to The Atchison, Topeka & Santa Fe Railroad, and being

the lands upon behalf of which and the owners thereof, relief is specifically sought by the bill of complaint herein. All of said lands were acquired for the purpose of irrigating the same by an extension of said Amity Canal from its then terminus in the County of Hamilton across said counties of Hamilton, Kearney Finney and Gray.

15. By reason of the acquisition of said lands in the State of Kansas and of the insufficiency of the flow of water of said river during the latter part of the irrigating season, the owners of said Amity Canal and of the lands lying thereunder in the State of Colorado and of said lands in the State of Kansas acquired as aforesaid, undertook the construction of a system of reservoirs in Townships 19 and 20 South, Ranges 47 and 48 West, in the County of Kiowa in the State of Colorado, with the necessary supply and delivery canals, for the purpose of impounding in said reservoirs, when and as the same might be obtained, the waters of said Arkansas River, and thereafter carrying the same, through the delivery canals of said system, into said Amity Canal, to be thence delivered and used in the irrigation of the lands lying thereunder in the States of Colorado and Kansas, and, by an extension of said canal, in the irrigation of the lands in said State of Kansas acquired as aforesaid.

In the construction of said reservoir system, a supply canal was built in the year 1897, commencing at a point on the north bank of the Arkansas River on the south line of Section 29, Township 23 South, Range 55 West, extending thence in a northeasterly direction a distance of 80 miles, said canal being of an average width of 60 feet from its headgate for a distance of 40 miles, with a carrying capacity of about 2,000 cubic feet of water per second of time,

and for the remaining 40 miles with an average width of 40 feet with a carrying capacity of 1,200 cubic feet per second. Said reservoirs were constructed in the year 1897 with a surface area of about 12,000 acres and with a shore line approximating 60 miles, the holding capacity of said reservoirs being about 250,000 acre feet.

There were also constructed certain delivery canals, aggregating 23 miles in length, with a carrying capacity of 600 cubic feet per second, through and by means of which the waters stored in said reservoirs were to be carried to and delivered into said Amity Canal.

There was expended in constructing said reservoir system more than $500,000.

16. After the construction of said reservoir system and the use thereof in connection with said Amity Canal, it was developed that the water obtainable by said system and by the direct diversion of the Amity Canal from said Arkansas River during the irrigating season was not sufficient to irrigate all the lands in Colorado and Kansas intended to be irrigated thereby, and the irrigation of the lands in Kearney, Finney and Gray Counties, and a portion of those in Hamilton County was, in the year 1901, abandoned for the time being, but said lands are now owned by persons originally concerned and interested in the said Amity Canal and the construction of said reservoir system.

17. In February, 1901, this defendant became a body corporate under and by virtue of a compliance with the laws of the State of New Jersey and duly authorized to acquire and hold lands and water rights in Colorado and Kansas, and, relying upon the laws, customs, usages

and policy of the State of Kansas respecting the diversion and use of water in the reclamation and cultivation of arid lands, and of the waiver, surrender and relinquishments by said State of Kansas and the owners of lands in said Arkansas Valley of all riparian rights in said river contrary to or in derogation of the right to divert the waters thereof for irrigation, as well as upon the acts of Congress respecting the diversion and use of the waters of the streams flowing on the public lands, and the surrender by the United States of all rights which might be claimed therein in derogation of the right to divert the same for irrigation, and as well upon the acts of the Legislature of Colorado and the laws, customs and usages prevailing in said state in respect to irrigation, all of which this defendant avers was well known to the owners of riparian and non-riparian lands in said Arkansas Valley in the State of Kansas, this defendant, on the first day of July, 1901, acquired title to said Buffalo and Amity canals and said Great Plains reservoir system, subject to the rights of all owners of lands diverting the waters of said river through said canals for the irrigation thereof and of about one hundred thousand acres of land in Colorado and Kansas lying under and irrigable from said canals and reservoirs, and invested in said properties about three million dollars.

18. About the year 1890, the colonization of the lands under said Amity and Buffalo canals was commenced and from time to time until the filing of the amended bill of complaint herein, tracts of land, varying from 5 to 160 acres, with the right to the carriage through said canals of the waters of said Arkansas River to be used in the irrigation thereof, had been sold, the aggregate thereof being

more than 40,000 acres, and the purchasers thereof have entered upon and improved the lands so sold to them, erecting houses and barns, building fences, planting trees and orchards, growing grains, grasses and vegetables and conducting the usual farming operations. Several towns and villages have grown up under said canals, and buildings for churches, schools, stores, residences and other public and private purposes have been erected,—all of said reclamation, cultivation and improvement being made in reliance upon the continued use of the waters of said Arkansas River in the irrigation of said lands; the amount invested in said lands and the improvement thereof and in said towns and villages dependent thereon aggregating several million dollars. The deprivation of the use of the waters of said river in the irrigation of the lands lying under said Buffalo and Amity canals, as sought by the bill of complaint herein, would render all said improvements valueless, compel abandonment of said lands, depopulate said towns and villages and reduce all of the lands under said canals to their original desert and worthless condition.

Said lands were very largely settled upon and purchased by former citizens of Kansas, the valley of the Arkansas in both Colorado and Kansas being treated and considered by colonists and settlers as an entirety, its development having no reference to the state line.

In addition to the citizens of Kansas removing to and settling upon said lands, the following lands under the ditches, canals and reservoir system of this defendant were, long prior to the filing of the bill of complaint herein, acquired in reliance upon the right to divert the waters of the Arkansas River and apply the same to the recla-

mation and irrigation thereof, by the following persons, who, at the time of the filing of the complaint herein, were and still are citizens and residents of Kansas:

The Southwest Quarter of Section 18, Township 23, Range 41, by A. D. Jones.

Part of Section 20, Township 23, Range 41, by W. J. House.

Northwest Quarter of Section 17, Township 22, Range 42, by P. M. Gillum.

Part of Section 31, Township 22, Range 42, by W. R. Falkiner.

Part of Section 31, Township 22, Range 42, by Thos. D. Alden.

Southeast Quarter of Southeast Quarter of Section 22, Township 22, Range 43, by B. F. Cochran.

Northwest Quarter of Southwest Quarter of Section 29, Township 22, Range 43, by S. F. Sales.

Northwest Quarter of Section 17, Township 21, Range 46, by Richard Turner.

West Half of Northeast Quarter of Section 34, Township 21, Range 46, by W. S. Metcalf.

Northwest Quarter of Section 10, Township 22, Range 47, by E. D. Kimball.

Northwest Quarter of Section 33, Township 21, Range 47, by John R. Mulvane.

Northeast Quarter of Northeast Quarter of Section 35, Township 22, Range 47, by W. B. Humphrey.

And this defendant submits that as the right of said citizens of Kansas and of all other persons owning lands under said canals and ditches to divert and use the waters of said river in the irrigation of their said lands is denied by the bill of complaint herein, they are necessary par-

ties to a determination of the matters presented by said bill of complaint.

19. Several thousand acres of land under the Amity Canal and the reservoir system of this defendant were, long prior to the filing of the bill of complaint herein, filed upon and the title thereto obtained from the Government of the United States by a compliance with an act of Congress approved March 3, 1877, known as the "Desert Land Act," and the persons so acquiring title to the same are, by said act of Congress, entitled to continue to divert the waters of the Arkansas River and use the same in the cultivation of said lands.

20. This defendant respectfully submits that the State of Kansas is not, as the owner, or the representative of the owners, of lands in said Arkansas Valley in Kansas, entitled to the relief sought in said amended bill of complaint against this defendant, because, by the acts, doings and conduct of said State of Kansas and of the owners of lands in said valley as above set forth, and by the delay of said state in filing its said bill, and by the failure of the owners of lands in said valley to assert the right claimed in their behalf by said state, this defendant and the owners of lands under said Amity and Buffalo canals and said Great Plains reservoir system have been induced to make large investments in reliance thereon, and said State of Kansas is in equity and good conscience estopped from now claiming any relief which would impair or destroy said investments, and this defendant therefore also submits that its rights in the premises cannot be ascertained or determined in this or any other proceeding without making the owners of land riparian to said Arkansas River in Kansas parties thereto.

21. This defendant further respectfully submits that aside from the laws, usages and customs concerning irrigation prevailing in the states of Colorado and Kansas, the said lands under said Buffalo Canal and under said Amity Canal were and are riparian to said river and entitled, by the principles and doctrines of the common law claimed by the bill of complaint herein to be applicable in both Colorado and Kansas, to divert the waters of said Arkansas River and use the same in the irrigation thereof, and that the use of said water on said lands for all purposes necessary to making the same habitable and capable of sustaining human life, is a domestic use authorized and protected by the said principles and doctrines of the common law relied upon by the bill of complaint herein.

III.

THIS DEFENDANT, FOR FURTHER ANSWER AND DEFENSE TO SAID AMENDED BILL OF COMPLAINT, SAYS:

1. On the 29th day of September, 1885, the predecessor in title of this defendant commenced the construction of a certain canal then called and since known as the Buffalo Canal, commencing on the north bank of the Arkansas River in the Northwest Quarter of Northwest Quarter of Section 31, Township 22 South, Range 43 West, and thence continuing to the line between the states of Colorado and Kansas, and thereby appropriated 100 cubic feet per second of the waters of said river and used the same in the irrigation of the lands situated under said canal, and at all times since the waters of said river, by virtue of said appropriation, have been diverted through said canal and used in the irrigation of said lands.

2. On the 21st day of February, 1887, the prede-

cessor in title of this defendant commenced the construction of a certain canal then called and since known as the Amity Canal, commencing on the north bank of the Arkansas River in the Northwest Quarter of Southwest Quarter of Section 36, Township 22 South, Range 48 West, and thence continuing to a point in the County of Hamilton in the State of Kansas about thirty miles east of the state line, and thereby appropriated 284 cubic feet per second of the waters of said river and used the same in the irrigation of the lands situated under said canal, and at all times since the waters of said river by virtue of said appropriations have been diverted through said canal and used in the irrigation of said lands.

3. On the 10th of December, 1897, the predecessor in title of this defendant commenced the construction of a system of reservoirs situated in Townships 19 and 20 South, Ranges 47 and 48 West, in the County of Kiowa in said State of Colorado, with a holding capacity of about 250,000 acre feet and of an available capacity for the irrigation of lands of about 150,000 acre feet; and, for the purpose of impounding in said reservoirs the waters of said Arkansas River, commenced the construction of a feeder canal commencing on the north bank of the Arkansas River in Section 29, Township 23 South, Range 55 West, and extending thence northeasterly a distance of 80 miles to said reservoir system; and, to carry the waters from said reservoir system into said Amity Canal for the purpose of supplying the same to lands lying under said Amity Canal, constructed delivery canals aggregating 25 miles in length and expended, in the construction of said work, the sum of five hundred thousand dollars and thereupon appropriated the waters of said river for storage and subsequent irrigation.

4. Said canals and said reservoir system were constructed and the diversion of the waters of said river made for the irrigation of lands lying under said canals and said reservoir system in accordance with and in reliance upon the doctrine respecting the appropriation of the waters of the natural streams for irrigation and other beneficial uses which, by usage and custom, prevailed in the arid region of the United States at the time of said appropriations and which, by the recognition and approval of the United States, has at all times been the law applicable to the public lands in said arid region.

5. Prior to the acquisition of private title to any of the lands acquired by the general government from France, Mexico and Texas by purchase, cession and annexation, respectively, comprising all the lands now within the jurisdiction of the United States between the Mississippi river and the Pacific coast, said general government caused said lands to be explored and reported upon for the purpose of ascertaining the natural resources and the physical and climatic characteristics of the various portions thereof, and by said explorations and information obtained from time to time, it become known to the United States and the inhabitants thereof that from about the 97th Meridian to the coast range of the Pacific slope, the land was an arid waste without timber or useful vegetation, except in the mountains, and that although the soil was rich and fertile, and great deposits of gold, silver and other valuable minerals existed therein, the soil could not be made productive nor the minerals extracted, nor could the land be inhabited, except by the diversion of water from the natural streams and the application thereof to agricultural and mining uses, and that in that portion of said

domain which lay south of the Arkansas River, and which had formerly been a part of Mexico, the laws, customs and usages there prevailing authorized and sanctioned the diversion and use of water for agricultural and other useful purposes in contravention of any right of the riparian owner to have such water continually flow in its natural channel.

6. With the earliest settlement in said arid region for agricultural and mining purposes, which was long prior to the opening of said lands to pre-emption and purchase, by necessity, common consent and uniform practice, the doctrine obtained that the waters of all the natural streams flowing through said arid region were subject to diversion and use for agricultural and mining purposes, and that the right to the water thus diverted could be obtained both as against the United States as the owner of the public lands and all grantees of the United States of lands lying along said streams, and that the right of the several appropriators from any given stream should be in the order of diversion and use, the first in time being first in right, and said doctrine has at all times been and now is the customary and statute law of said arid region in respect to the natural streams thereof.

With knowledge and in recognition of such right and custom of the inhabitants of such arid region to divert waters, and to apply the same to beneficial and necessary uses, the United States, in its treaty with Spain of February 22nd, 1819, and afterwards in its treaty of January 12th, 1828, with the United Mexican States, expressly stipulated and provided, that the use of the waters of the Arkansas River, and of certain other boundary streams, should be common to the respective inhabitants of both nations, parties to such treaties respectively.

7. Upon the creation and admission of the several territories and states of said arid region, including Kansas, both as a territory and state, they recognized, approved and confirmed, and from thence hitherto have enforced said doctrine, and rights to water by diversion from the streams of said arid region have been maintained as against all claims of riparian rights in conflict therewith.

8. The Government of the United States, long prior to the sale by it of any of the public lands in the Arkansas valley, recognized and approved said doctrine, and applied the same to said public lands, and renounced and surrendered all riparian rights which it might have asserted in contravention of said doctrine, and from thence hitherto has held and disposed of said lands subject to and in accordance with said doctrine, and has at all times encouraged and promoted the diversion and use of the water of the streams in said arid region for agricultural and mining purposes, and by grants of public money has aided in the construction of canals, ditches and reservoirs and other appliances for the diversion, storage and use of water, in the reclamation and cultivation of the public lands.

9. By an act of Congress, approved September 4, 1841, and by subsequent acts relating thereto, the public lands, including the lands in said arid region were declared subject to pre-emption and homestead purchase, and all persons desiring to avail themselves of the provisions of said acts were required to make a settlement upon the land in person and to inhabit and improve the same. It was then, and at all times since has been well known to the general government, and particularly to Congress and the

executive departments having in charge the administration of said acts, that the provisions thereof in respect to settlement, inhabitancy and improvement could not be complied with in the pre-emption and purchase of arid lands, except by the diversion of the waters of the streams upon the public lands and the application thereof to domestic and irrigation purposes in reliance upon the continuance of the right so to do in accordance with said doctrine of appropriation.

10. By means of the diversion and use of the waters of said natural streams, many million acres of the public lands in said arid region have been settled upon, inhabited and improved and title thereto obtained from the general government, in the belief that by its action and conduct in the disposition of its public lands, the United States had accepted and applied to said public lands the doctrine of appropriation as hereinbefore set forth; and there has been paid to said general government, on account of said lands so improved by the diversion and use of water in accordance with said doctrine, upwards of twenty million dollars, and the greater part of the lands in the valley of the Arkansas in the State of Colorado, were settled upon and patents therefor obtained by proof of the diversion and use of the waters of said Arkansas River in the reclamation and improvement of said lands, said diversions so made being those complained of and sought to be enjoined in and by the bill of complaint herein.

11. The territory of Kansas by its legislature, recognized and approved the said doctrine of appropriation, and in pursuance thereof in 1859 authorized The St. Charles Town Company to divert the waters of the South Platte river and Cherry creek, and The Mountain Com-

pany to divert the waters of the Platte river, and The El Paso Town Company to divert the waters of the tributaries of the Arkansas river heading at Pike's Peak; and in 1860 authorized The Capital Hydraulic Company to divert for irrigation purposes all the waters of the South Platte river and Cherry creek. And the State of Kansas, by its legislature, has also recognized, approved and adopted said doctrine; an act of said legislature enacted in 1868, authorizing corporations to construct canals diverting water for irrigation purposes; an act of the legislature enacted in 1886 providing that the running waters of the state might be appropriated for purposes of irrigation; an act of said legislature enacted in 1891, providing that in all that portion of the state west of the 99th Meridian all natural waters, whether standing or running and whether surface or subterranean, should be devoted first, to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses; and, second, to other industrial purposes, and might be diverted from natural beds, basins or channels for such purposes and uses; and another act enacted in 1895 providing for the development of the land west of the 98th Meridian by irrigation and regulating the distribution of water in the same manner as in Colorado. Said state by said several acts renouncing and surrendering all rights it may have had in said river or the lands adjacent thereto as riparian owner in contravention of the right to divert the waters thereof for irrigation in Kansas or Colorado.

12. By the act of Congress approved January 29th, 1861, admitting Kansas into the Union, it was specifically provided that the State should never interfere with the primary disposal of the soil within the same by the United

States, or with any regulations Congress might find necessary for securing the title in said soil to bona fide purchasers thereof, and that all laws of the United States not locally inapplicable should have the same force and effect within said State as in other States of the Union.

13. Following the admission into the Union of the State of Kansas, said doctrine of appropriation was further recognized by Congress as the law applicable to the public lands and the natural streams thereof, including those in the State of Kansas, by the following acts:

An act approved July 26, 1866, by which it was provided that whenever, by priority of possession, rights to the use of water for mining, manufacturing or other purposes, have accrued and are recognized according to local customs, laws and decisions, the owners and possessors shall be maintained and protected in their rights;

An act approved July 9, 1870, in which it was provided that all patents granted, or pre-emptions or homesteads allowed, should be subject to any vested and acquired water rights or rights to ditches and reservoirs used in connection with such water rights;

An act approved March 3, 1877, known as "The Desert Land Act," which declared that all waters of all lakes, rivers and other sources of supply upon the public land should remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes, and in and by which it was also provided that by the construction of canals and ditches and the application of said waters to the irrigation of the public lands, the title to said lands might thereby be obtained from the United States;

An act approved March 3, 1891, confirming the rights of way over the public lands in the arid region for canals and reservoirs for irrigation purposes;

An act approved August 18, 1894, providing for the conveyance to the several states in the arid region of such public lands as they might reclaim and irrigate;

An act approved June 17, 1902, authorizing and undertaking the construction of canals, ditches and reservoirs in the arid region, including therein the State of Colorado and the western portion of Kansas, whereby the waters of the public lands might be diverted and used for irrigation purposes, and appropriating for that purpose the proceeds of all moneys received from the sale of public lands in the States of Colorado and Kansas.

Under and by virtue of said act approved March 3, 1877, which was made applicable to lands in Colorado by an act approved March 3, 1891, several thousand acres of land in the Arkansas Valley in the State of Colorado, were reclaimed and irrigated, and the diversions of water for said purposes are in part the diversions complained of in the said bill of complaint.

14. Said doctrine was further recognized by Congress by the appropriation, on October 2nd, 1888, of $229,000 for the purpose of investigating the extent to which the arid region of the United States might be redeemed by irrigation and for the segregation of the irrigable lands in such arid region, and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of water for irrigation and also by a further appropriation made on March 2nd, 1889, of $450,000 for the like purpose, all of which moneys were

expended in investigating and selecting reservoir sites and in running contour lines for the purpose of aiding and assisting those desiring to appropriate the waters of the natural streams and using the same for irrigating purposes.

15. The provisions of the Constitution of the State of Colorado set forth and complained of in the bill of complaint, were adopted in harmony with and in pursuance of the policy of the United States in respect to the diversion and use of water in the irrigation of land, and the same do not conflict with or contravene any act of Congress bearing upon said appropriation and use, but, on the contrary, are intended as a constitutional guaranty that the right to divert water for beneficial purposes as authorized and encouraged by the acts of Congress referred to shall never be denied, and said provisions were accepted and approved by the action of Congress in admitting Colorado into the Union, and the several acts of the legislature of Colorado, referred to in said bill of complaint, have been enacted for the purpose of protecting and regulating appropriations made in pursuance of the usages and customs prevailing in the arid region and the rights of appropriation as recognized and confirmed by the acts of Congress referred to.

16. All grants and patents of land in the valley of the Arkansas, in the State of Kansas, were made by the United States, subject to the doctrine of appropriation heretofore set forth, and were accepted by the several grantees thereof with the knowledge that in the sale and disposition of the arid lands of the United States along said Arkansas River west of the 97th Meridian, it had been and would be necessary to divert and use the waters of

said river in the improvement and cultivation thereof, and said grants and patents of lands in the State of Kansas were made subject to the right of all persons desiring the use of the same for agricultural purposes to appropriate the waters of the Arkansas river, either in Kansas or Colorado, to the full extent of said river, and all patents granted and all pre-emptions and homesteads allowed of lands in the valley of the Arkansas in the State of Kansas subsequent to July 9th, 1870, including in particular the lands described in the bill of complaint situated in Ford county, conveyed to said State of Kansas by the United States on the 13th day of June, 1889, and the lands in Reno county described in said bill of complaint conveyed to the said State of Kansas at divers times subsequent to said 9th day of July, 1870, were, by the act of Congress of July 9th, 1870, made subject to all water rights in said river and rights of ditches and reservoirs in connection therewith acquired in accordance with the local customs, laws and decisions of Colorado.

IV.

THIS DEFENDANT, FOR FURTHER ANSWER AND DEFENSE TO SAID AMENDED BILL OF COMPLAINT, SAYS:

1. On the 29th day of September, 1885, the predecessor in title of this defendant commenced the construction of a certain canal then called and since known as the Buffalo Canal, commencing on the north bank of the Arkansas River in the Northwest Quarter of Northwest Quarter of Section 31, Township 22 South, Range 43 West, and thence continuing to the line between the States of Colorado and Kansas, and thereby appropriated 100 cubic feet per second of the waters of said river and used the same

in the irrigation of the lands situated under said canal, and at all times since, the waters of said river by virtue of said appropriation have been diverted through said canal and used in the irrigation of said lands.

2. On the 21st day of February, 1887, the predecessor in title of this defendant commenced the construction of a certain canal then called and since known as the Amity Canal, commencing on the north bank of the Arkansas River in the Northwest Quarter of Southwest Quarter of Section 36, Township 22 South, Range 48 West, and thence continuing to a point in the County of Hamilton in the State of Kansas about thirty miles east of the state line, and thereby appropriated 284 cubic feet per second of the waters of said river and used the same in the irrigation of the lands situated under said canal, and at all times since the waters of said river by virtue of said appropriation have been diverted through said canal and used in the irrigation of said lands.

3. Said Buffalo and Amity canals were constructed and said waters were diverted and used in the irrigation of the lands situated under said canals in accordance with the local customs, laws and the decisions of the courts of the State of Colorado respecting rights to the use of water for mining, agricultural, manufacturing and other purposes then in force, enacted and made.

4. The right to appropriate the waters of said river through and by means of said canals for the purpose of irrigation to the extent above set forth was, in the year 1895, in certain proceedings then pending in the District Court of the County of Bent in said State of Colorado, brought and conducted in accordance with the acts of the

General Assembly of the State of Colorado enacted in 1879 and 1881, concerning the adjudication of rights to water for irrigation purposes, recognized and acknowledged and said right adjudged to be vested and accrued as of the date of the respective appropriations made by the construction of said canals.

5. The lands in Ford County alleged by the bill of complaint to have been obtained by said State of Kansas by purchase from the Government of the United States in the year 1889 and used as a Soldiers' Home, as well as all other lands in the valley of the Arkansas in the State of Kansas acquired from the Government of the United States since the 21st day of February, 1887, were conveyed and taken subject to the appropriation and use .of the waters of said Arkansas River through and by means of said Amity Canal as above set forth.

6. The lands in said Arkansas valley in Kansas acquired from the government of the United States since the 29th day of September, 1885, were conveyed to and taken by the several grantees thereof subject to the appropriation and use of the waters of said river through and by means of said Buffalo Canal as above set forth.

7. This defendant respectfully submits that as to all lands in the valley of the Arkansas in Kansas acquired subsequent to the appropriation of the Amity Canal as above set forth, the State of Kansas is not entitled, as against said canal, to the relief demanded in the bill of complaint herein; and that as to all the lands in said valley acquired subsequent to the appropriation of said Buffalo Canal, as above set forth, the said State of Kansas is not entitled, as against said canal, to the relief demanded in

said bill of complaint; and this defendant respectfully submits that the owners of lands in said valley are necessary parties to a determination of the rights claimed by the bill of complaint herein, and that they should be made parties plaintiff hereto and compelled to set forth the dates of the several conveyances to them by the Government of the United States of the lands now owned by them in said valley.

V.

THIS DEFENDANT, FOR FURTHER ANSWER AND DEFENSE TO SAID AMENDED BILL OF COMPLAINT, SAYS:

1. On the 29th day of September, 1885, the predecessor in title of this defendant commenced the construction of a certain canal then called and since known as the Buffalo Canal, commencing on the north bank of the Arkansas River in the Northwest Quarter of Northwest Quarter of Section 31, Township 22 South, Range 43 West, and thence continuing to the line between the States of Colorado and Kansas, and thereby appropriated 100 cubic feet per second of the waters of said river and used the same in the irrigation of the lands situated under said canal, and at all times since, the waters of said river by virtue of said appropriation have been diverted through said canal and used in the irrigation of said lands.

2. On the 21st day of February, 1887, the predecessor in title of this defendant commenced the construction of a certain canal then called and since known as the Amity Canal, commencing on the north bank of the Arkansas River in the Northwest Quarter of Southwest Quarter of Section 36, Township 22 South, Range 48 West, and thence continuing to a point in the County of Hamilton in the

State of Kansas about thirty miles east of the state line, and thereby appropriated 284 cubic feet per second of the waters of said river and used the same in the irrigation of the lands situated under said canal, and at all times since the waters of said river by virtue of said appropriation have been diverted through said canal and used in the irrigation of said lands.

3. The diversion and use of the waters of said river were made at the time of the construction of said canals and have been continued each and every year since, and until the filing of the amended bill of complaint herein, adversely to and in denial of the right of each and every riparian owner along said river in Kansas, as well as each and every owner of land in said Arkansas valley in Kansas, to the usual and ordinary flow of said river in Kansas over or along any of said lands as it had been accustomed to flow prior to the diversion of said waters by this defendant or by other appropriators in Colorado, and in denial of any right of the riparian owners along said stream or of lands in the vicinity thereof to the flow of the water of said stream, except as the same might continue after the diversion through and by means of said Amity and Buffalo canals of the waters of said river necessary to the irrigation of the lands lying thereunder.

4. The diversion of the waters of the Arkansas River in Colorado for irrigation purposes commenced more than 25 years prior to the construction of said Amity and Buffalo canals, and the flow of water in said river has been diminished by said appropriations and each and every owner of land along said river in Kansas and in the neighborhood thereof well knew, at the time said Amity and

Buffalo canals were constructed and the diversion of water made thereby, that said canals, as well as all other canals along said river in the State of Colorado, were diverting and using said waters adversely to and in derogation of any and all rights which they might claim or possess as riparian owners with respect to the waters of said Arkansas River.

5. This defendant respectfully submits that by the statutes of the State of Kansas concerning the limitation of actions, the right of each and every owner of land along said Arkansas River in Kansas to the usual and ordinary flow of said river as the same existed prior to the appropriation of said waters in the State of Colorado, and in particular prior to the appropriation and diversion through and by means of said Amity and Buffalo canals, became lost by fifteen years adverse use thereof and all right of action concerning said waters barred after the expiration of fifteen years from the commencement of the assertion and exercise of said adverse right.

VI.

THIS DEFENDANT, FOR FURTHER ANSWER AND DEFENSE TO THE SAID AMENDED BILL OF COMPLAINT, SAYS:

1. The Arkansas River leaves the foot hills of the Rocky Mountains at an elevation of about six thousand feet above sea level, and thence flows eastward over an elevated plateau known as the "Great Plains" for several hundred miles, with a practically uniform descent to the east, passing into the State of Kansas at an elevation of 3,350 feet and into the territory of Oklahoma at an elevation of 1,000 feet. Through Colorado and Kansas it has a

broad, level bed of sand, seldom entirely covered with water, the ordinary flow running in thin sheets in tortuous and constantly changing channels in the river bed. From the mountains, for four hundred miles eastward, the watershed of said river is naturally barren, treeless and without any vegetation, except the short sparse grass common to the Great Plains. The annual precipitation of moisture is about fourteen inches, most of which falls in local and violent storms. In its uncultivated condition, the land rapidly sheds the rainfall, discharges it into the river and prevents the saturation of the soil and the formation of springs by which said river and the tributaries along its course might be fed. The tributary streams are usually dry, carrying and discharging water into the river only in case of storms. The sun is seldom obscured, and commencing near the state line between Colorado and Kansas, and continuing eastward for at least two hundred miles, the winds are dry and constant, in the summer season becoming so heated as to burn and destroy the vegetation and to absorb such water as may be in the bed of said river. The waters supplied to said river for about four hundred miles of its course after leaving the mountains are irregular in discharge and constantly varying in quantity, and are not sufficient to cause a steady and permanent flow during any season of the year. The main supply of the river is from the snows and storms in the mountains. As the snow melts only during warm days, this supply is also irregular and uncertain, and the volume of water in the river, therefore, changes daily and even hourly. Long before irrigation was practiced in Colorado, it was observed that as the waters from the mountains flowed eastward, the volume constantly diminished, and this diminu-

tion was the more marked as the river passed beyond the area of local storms caused by the mountains. During the summer season, except when flooded by violent showers, the river, at a distance of from two hundred to four hundred miles from the mountains, would show no surface water other than occasional pools in the sand, and none of the water coming into said river in Colorado would flow to or across the lands in the central or humid portion of Kansas.

The usual and ordinary flow of said river into the State of Kansas, as it is claimed to have been prior to the diversion of water in Colorado by this defendant and others, has been materially diminished by the destruction of timber in the water shed of said river in the mountains, the removal of the protection which said timber afforded causing the snow to melt much earlier in the summer season than heretofore and to come down in floods, instead of a long sustained flow. The breaking up and tilling of the land lying on both sides of said river, which, in its natural condition, was hard and rapidly drained the water falling thereon, and the raising of crops on said lands, both in Colorado and western Kansas, for a distance of about two hundred miles, has caused the rainfall on said lands to sink into the earth, instead of passing rapidly to the river, and as said lands so broken and tilled lie along the course of the river, they have also intercepted the surface run-off from the drainage area back of and above said lands.

By the breaking and cultivation of said lands and the application of water thereto and the absorption by said lands of the rainfall which formerly flowed directly into the river, the physical characteristics of said river in re-

spect to the flow of water therein has been materially changed. The lands so broken and cultivated were, in their natural condition, barren and devoid of moisture, except at extreme depths, and the gulches and water ways leading through them to the river were, at all seasons of the year, except in time of rain, entirely dry. By said artificial application of water and by the interception of the rain falling and draining upon said lands, the same condition has been and is being produced that obtains where rainfall is abundant. The lands have become saturated, veins and channels of water are thereby created and as the water seeks a lower level, it exudes by springs or swampy lands into the gulches and water ways, making them perennial streams discharging a uniform flow of water into the river.

Although the defendant is diverting water from said Arkansas River through the Amity and Buffalo canals, said diversion does not result in any injury to the State of Kansas or to the owners of lands in the valley of the Arkansas in said State, nor does the same, to any substantial degree, diminish the usual and ordinary flow of water in said river in Western Kansas. Said canals are taken out in the eastern part of the State of Colorado and the waters diverted are largely those returned to said river by the lands cultivated and irrigated along the course of said river above the intake of said canals. The waters so diverted, together with the large bodies of flood and storm waters diverted and stored by this defendant in its reservoirs, permit the reclamation and irrigation of many thousand acres of land under said canals, much in excess of the number that might be irrigated by the direct diversion of water during the irrigating season, and all these

lands thus become saturated, and year by year, as the area is extended, and as the water in course of time finds its way back to the river, the permanent and valuable flow of said river in western Kansas is conserved and increased, rather than diminished.

This defendant, now having fully answered all the allegations in the plaintiff's amended bill of complaint, or so much thereof as the defendant is advised should be answered, asks to be hence dismissed with cost and charges in this behalf sustained.

THE ARKANSAS VALLEY SUGAR BEET AND IRRIGATED LAND COMPANY,

by William Mackey manager

Platt Rogers
John F. Shafroth
Frank E. Gregg
Thomas K. Irvine
Henry A. Dubbs

Solicitors of The Arkansas Valley Sugar Beet and Irrigated Land Company.

UNITED STATES OF AMERICA, }
DISTRICT OF COLORADO. } ss.

On this..... day of October, A. D. 1903, before me personally appeared William M. Wiley, Manager of The Arkansas Valley Sugar Beet and Irrigated Land Company, in the State of Colorado, and in accordance with the laws of said state designated as the agent of said company in said state upon whom process should be served, who made solemn oath that he had read the foregoing answer subscribed by him and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters therein stated on information and belief and as to those matters he believes it to be true.

Subscribed and sworn to before me this.....day of October, A. D. 1903.

FILE COPY.

Office Supreme Court U. S.
FILED
NOV 3 1906
JAMES H. MCKENNEY,
Clerk.

IN THE

SUPREME COURT

OF THE

UNITED STATES.

THE STATE OF KANSAS,
Complainant,
vs.
THE STATE OF COLORADO, THE ROCKY FORD CANAL, RESERVOIR, LAND, LOAN AND TRUST COMPANY, THE CATLIN CONSOLIDATED CANAL COMPANY, THE OXFORD FARMERS' DITCH COMPANY, THE LAKE CANAL COMPANY ET AL.,
Defendants.

3 Orig'l.
C. T. 1906
Original Proceeding No. 8

Joint and several answer of the defendants, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, The Catlin Consolidated Canal Company, The Oxford Farmers' Ditch Company and The Laguna Canal Company (in the amended bill by mistake called The Lake Canal Company), to the amended bill of complaint of the State of Kansas.

FRED A. SABIN,
Solicitor of The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company,
The Catlin Consolidated Canal Company,
The Oxford Farmers' Ditch Company,
The Laguna Canal Company.

IN THE

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THE STATE OF KANSAS,
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THE STATE OF COLORADO, THE ROCKY FORD CANAL, RESERVOIR, LAND, LOAN AND TRUST COMPANY, THE CATLIN CONSOLIDATED CANAL COMPANY, THE OXFORD FARMERS' DITCH COMPANY, THE LAKE CANAL COMPANY ET AL.,
Defendants.

Original Proceeding No. 7.

October Term, 1903.

Joint and several answer of the defendants, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, The Catlin Consolidated Canal Company, The Oxford Farmers' Ditch Company and The La-

guna Canal Company (in the amended bill by mistake called The Lake Canal Company), to the amended bill of complaint of the State of Kansas, Complainant.

These defendants, and each of them, now and at all times hereafter saving to themselves all and all manner of benefit or advantages of exception or otherwise that can or may be had or taken to the many errors, uncertainties and imperfections in the said bill contained, for their joint and several answer thereto, or to so much thereof as they are advised it is material or necessary for them to make answer to, answering, say:

I.

1. These defendants admit that the rise, course, drainage area and general physical characteristics of the Arkansas River and of the valley thereof, except as hereinafter set forth, are as stated in said amended bill of complaint.

2. These defendants deny that the said Arkansas River is in fact, or within the laws or departmental rules and regulations of the United States, a navigable stream either within the State of Colorado or the State of Kansas.

3. These defendants deny that any diminution of the flow of said river from the State of Colorado into the State of Kansas is wholly or mainly attributable to the diversion of the waters of said river in the State of Colorado; and deny that the normal flow of said river at the state line, in the absence of irri-

gation, for ten months, or for any considerable period during the year, is upward of two thousand cubic feet per second, or any amount in excess of five hundred cubic feet per second.

4. These defendants admit that the ordinary and usual rainfall in the valley of said river west of the 98th Meridian is inadequate for the growing and maturing of cultivated crops; and allege that in that portion of the State of Kansas the inhabitants thereof have resorted to and are now practicing the method of appropriating the water from said river and using the same for the irrigation of lands that for more than forty years has been practiced in the State of Colorado.

5. These defendants deny that from time immemorial, or at all, the waters of said river have flowed through underlying sand and gravel extending in width under the entire valley of the Arkansas River or any material portion thereof; and deny that any part of the course and flow of said river is beneath the surface of the bottom lands of the valley, or that the course or flow thereof is of any greater width than the channel of said river between its banks, or that there is any underflow of water coextensive with the valley of said river passing from the State of Colorado into the State of Kansas or in or through said State of Kansas; and these defendants deny that the alleged underground waters of said river furnish sufficient moisture to grow ordinary farming crops in the absence of rainfall, unless supplemented by water applied by a system of irrigation such as is in use in Colorado and in the western part of Kansas.

6. These defendants deny that the flow of the river or the undeground waters, to any appreciable extent, tends to cool or moisten the surrounding atmosphere, promote the growth of vegetation, enhance the value of lands or conduce directly or materially to the public health or the habitability of the valley; and allege that such results throughout the arid and semi-arid portions of Kansas can be produced only by the diversion of water from the river and the application of the same by a system of irrigation to the adjoining lands, and the cultivation thereof.

7. These defendants deny that the value of lands in the valley of the Arkansas in said State of Kansas is in any degree dependent upon the natural and normal flow of water in said river; and deny that the acts alleged to have been done by this defendant are wrongful; and deny that by reason of said alleged wrongs, or otherwise, the value of lands in the valley of the Arkansas River in the State of Kansas has been diminished in any sum whatever, or that the revenue of the State of Kansas arising therefrom has been or will be in any wise injuriously affected.

8. These defendants admit the acquisition by the State of Kansas of the lands mentioned in said bill of complaint and the conveyance of certain portions thereof to the grantees mentioned therein; and allege that all of said lands so acquired by said State of Kansas and held by its grantees, as well as all lands acquired by settlers by homestead, pre-emption or purchase, were at all times, and are now, subject to the riparian rights of other proprietors of lands in the valley of the Arkansas higher up said stream and

to the right of other proprietors of land in said valley to appropriate the waters of said river and use the same in the irrigation thereof both in Colorado and western Kansas.

9. These defendants deny that the Arkansas River is now, or at any time has been, a navigable stream in the State of Kansas, or treated as such, or that the title to the bed of said river in the State of Kansas ever passed to said state, or that said state now is or ever has been the owner thereof or entitled to the control thereof, or has ever attempted to control the same save and except as by an act of the legislature of the State of Kansas, passed in 1886, it declared that the right to the use of running water flowing in a river or stream of Kansas, for the purposes of irrigation, might be acquired by appropriation; and by a like act, passed in 1891, declared that in that portion of the state west of the 99th Meridian, all natural waters, standing or running, should be devoted first to purposes of irrigation in the aid of agriculture, subject to ordinary domestic uses; and secondly, to other industrial uses, and that the same might be diverted from the natural beds, basins or channels for such purposes and uses; and as, by a like act subsequently passed, it enlarged and extended the right to use the natural waters of said state for irrigation purposes eastward to the 98th Meridian.

10. These defendants have no knowledge of the several conveyances or grants of land in the valley of said river in the State of Kansas heretofore made by the Government of the United States, except as here-

inafter set forth, and aver that all of the conveyances or grants referred to in said bill of complaint, including in particular the lands alleged to be owned by the State of Kansas, were made subject to all rights to water from said river for irrigation purposes theretofore and thereafter to be acquired, and were taken with full knowledge on the part of said State of Kansas, and by each and every grantee of said lands, that the waters of said river had been, were being and would be appropriated in the State of Colorado for beneficial uses in the irrigation of land, and that the land in said valley in the State of Kansas west of the 98th Meridian and in the State of Colorado could only be made available for agricultural purposes by like appropriation and use, and that the Government of the United States, as the primary owner of said lands, had assumed that it held the same subject to the appropriation of the waters of said river for irrigation purposes, and that all patents of land granted after July 9th, 1870, should be subject to all vested and acquired water rights in or over said river.

11. These defendants deny that the lands alleged in said bill of complaint to belong to the State of Kansas and situated in the counties of Ford and Reno depend for their value for farming purposes upon the flow of water in the bed of said river or upon the underflow beneath said land, or that they are entitled to the full, free and natural flow of said waters which would naturally flow in said river to or beneath said land; and deny that the rights of the State of Kansas as the owner thereof are prior or

superior to the rights of these defendants or of the lands irrigated by their canals as hereinafter more particularly set forth.

12. These defendants deny that the diversion of the waters of the Arkansas River by these defendants and the use thereof in the irrigation of the lands lying under their canals in any degree whatever diminishes the ordinary and usual flow of the water in said State of Kansas, and on the contrary allege that, as a result of irrigation in the valley of the Arkansas in the State of Colorado, the lands irrigated act as reservoirs for the storage of the ordinary and usual flow of said river and of the flood and storm waters thereof, returning the waters not used by plant life or lost by evaporation to the bed of the river by the natural and ordinary process common to lands having abundant rainfall, and the average flow of water into said State of Kansas, outside of flood and storm periods, is thereby increased instead of diminished.

13. These defendants deny that they are carrying any of the waters of said river through their canals to lands not riparian to said river in the sense given to the word "riparian" in the bill of complaint, and allege that all of the lands under their said ditches and canals are within the water shed of said river.

14. These defendants deny that when the Territory of Kansas was created or the State of Kansas admitted to the Union, the water of said Arkansas River was wholly unappropriated, or that the common law and the riparian rights claimed in said bill

of complaint extended over said valley in the State of Kansas, or that the owners of lands along said river were entitled to the unimpeded flow of the water of said river; but on the contrary aver that numerous appropriations of said water had been made for irrigation purposes long prior to the creation of said territory and many more were made prior to the conveyance by the Government of the United States of any of the lands lying along or adjacent to said river, and that the necessity and right to divert the water of said river for the reclamation of arid land had, long previous to the creation of said territory, been asserted and exercised by persons in possession of said lands, and said necessity and right were thereafter recognized by the legislature of the Territory of Kansas, and all lands along said river acquired by the State of Kansas, or by individuals or corporations within the Territory or State of Kansas, were taken and held with full knowledge of the climatic conditions which made necessary the diversion of the waters of the said river west of the 98th Meridian, and that appropriations had been, were being and would be made west of the 98th Meridian within the States of Kansas and Colorado, and that to the extent of said appropriations the flow of water of said river might, by the laws, usages and customs then prevailing, be lawfully impeded.

15. These defendants deny that by their taking of water from said river in the State of Colorado through their canals and the use thereof in the irrigation of lands lying thereunder, the State of Kansas, or any of its citizens, or the owners of land along said

river in the State of Kansas, have been injured in any degree whatever, or that the fertility of the lands or the use thereof to the fullest extent to which the same are naturally capable of use, have been diminished or impaired, or that the crops, trees or vegetation growing along said river have perished or will perish, or that the wells have become or will become dry, or that the salubrity or healthfulness of said valley, or of the lands adjacent to said river, have been or will be impaired.

II.

These defendants, for further joint and several answer and defense to the amended bill of complaint, say:

1. During the year 1869 The Ballow Hill Ditch Company, a corporation, constructed an irrigating ditch, called "The Ballow Hill Ditch," in Pueblo County, Colorado, with its headgate located on the north bank of the Arkansas River in Section Six (6), Township Two (2), South of Range Sixty-two (62), West of the Sixth Principal Meridian, said ditch being about four miles in length. Said ditch was built for the purpose of reclaiming and irrigating certain waste and arid lands lying thereunder and riparian to said river, and on July 1, 1869, an appropriation of water from said river for said purpose was made by said Company to the amount of sixteen cubic feet of water per second of time which said appropriation has been continuously used since said date and to the present time. Thereafter, in the year 1885, said corporation enlarged said canal and extended the same

to a length of about twelve miles and, during the month of June, 1885, made a further appropriation of water from said river of thirty cubic feet of water per second of time, which said appropriation has been used continuously since that date to the present time.

2. During the year 1886 there was constructed another irrigating ditch known as "The Allen Ditch" with its headgate located on the south bank of the Arkansas River in the Northeast Quarter (N. E. ¼) of Section Seventeen (17), Township Twenty-one (21), South of Range Sixty-one (61), West of the Sixth Principal Meridian in Pueblo County, Colorado. Said ditch was about one and one-half miles long and built for the purpose of irrigating and reclaiming certain waste and arid lands which were riparian to the Arkansas River and located on the south bank thereof. There was diverted from said river and appropriated for the purpose of irrigating said lands through said ditch, on the 11th day of March, 1886, two cubic feet of water per second of time, and thereafter, in January, 1890, the further amount of two and one-half cubic feet of water per second of time, both of which appropriations have been continuously used since they were originally made and up to the present time.

3. This defendant, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, was organized under the laws of the State of Colorado in 1889, for the purpose among other things, of acquiring and becoming the owner of the right to appropriate and take water from the Arkansas River and its tributaries and for the purpose of constructing reservoirs

for the impounding of said waters and a canal for the delivery thereof to farmers and others living thereunder for the irrigation of lands and for domestic purposes, each of the persons so receiving water from said canal to be a stockholder therein and to receive a certificate of stock entitling him to the use of a certain portion of the water flowing through said canal.

4. Pursuant to the purposes of its organization this defendant, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, in 1889, constructed and now owns a canal known as "The Rocky Ford Highline Canal," the same being located on the south side of the Arkansas River in the Counties of Pueblo and Otero, in the State of Colorado, with its headgate at the point of location of the headgate of the Allen Ditch hereinbefore described. On the 6th day of January, 1890, by means of said canal, this defendant, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, appropriated and diverted water from the Arkansas River to the amount of four hundred twenty-two and one-half cubic feet per second, and applied the same to beneficial uses for irrigation, to the lands under said canal. Said canal is seventy-eight miles long and twenty feet wide on the bottom at its headgate, and cost, in its original construction, $225,000, and $78,000 more has been expended by its present owner in improvements thereon and in the purchase of priorities, since its original construction.

5. On March 23, 1896, the District Court of Pueblo County, Colorado, it having jurisdiction in the premises, in a matter there pending, entitled "In the Matter of Priorities of Water Rights in District

No. 14," decreed a priority for sixteen cubic feet of water per second, of date July, 1869, and a further priority for thirty feet per second, of date June, 1885, to be carried through the said Ballow Hill Ditch, and, at the same time, decreed a priority for four hundred and twenty-two and one-half cubic feet of water per second of time, to be carried through the Rocky Ford Highline Canal, two cubic feet thereof being of date March, 1886, and four hundred and twenty and one-half cubic feet thereof being of date January, 1890, all of which priorities the defendant, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company now owns.

6. During the year 1901 a decree of the District Court of Pueblo County, Colorado, was entered, adjudging and decreeing the transfer of said rights of appropriation from the Ballow Hill Ditch to the Rocky Ford Highline Canal, said decree having been made under and by virtue of the provisions of an Act of the General Assembly of the State of Colorado entitled "An Act in Relation to Irrigation," approved April 6, 1899. After the transfer of said priorities said Ballow Hill Ditch was abandoned and has not since been used for irrigation purposes.

7. During the year 1884, The Catlin Land and Canal Company, a corporation, constructed an irrigating ditch called "The Catlin Ditch" in Otero County, Colorado, with its headgate located on the south bank of the Arkansas River at its confluence with the Apishapa River, one of its tributaries. Said ditch was built for the purpose of reclaiming and irrigating certain waste and arid lands lying there-

under and riparian to the Arkansas River, and, on the 3rd day of December, 1884, an appropriation of water from said river for said purpose was made by said Company to the amount of two hundred and forty-eight cubic feet per second, which said appropriation has been continuously used since that date by said defendant and its predecessor in title.

8. During the year, 1887, The Fairmount Lateral and Reservoir Company, a corporation, constructed an extension of said Catlin Ditch, making said ditch as extended forty-eight miles long. Said extension was built for the purpose of reclaiming and irrigating certain waste and arid lands lying thereunder and riparian to said river, and on November 14, 1887, a further appropriation of water from said river for said purpose was made by said Company to the amount of ninety-seven cubic feet per second, which said further appropriation has been used continuously since that date by this defendant and its predecessor in title.

9. This defendant, The Catlin Consolidated Canal Company, was organized as a corporation under the laws of Colorado, November 7, 1892, for the purpose, among other things, of acquiring title to the Catlin Ditch and the said extension thereof and becoming the owner of the rights of appropriation of the waters of said river belonging thereto and for the purpose of delivering said water to farmers and others living thereunder for the irrigation of lands and for domestic and irrigation purposes. Pursuant to the purposes of its organization said defendant, on the 27th day of December, 1892, pur-

chased said canal and the extension thereof, and all rights of appropriation of water belonging thereto, and ever since has been and now is the owner thereof. In the construction of said canal and extension more than $100,000 has been expended by said defendant and its predecessors in title.

10. In the year 1867, the predecessor in title of this defendant The Oxford Farmers' Ditch Company, constructed an irrigating canal in Pueblo County, Colorado, on the south bank of the Arkansas River, having its headgate in Section thirty-one (31), Township twenty-one (21), South of Range sixty (60), West of the Sixth Principal Meridian, said canal being known as the "Enterprise Ditch," and, on the 1st day of March, 1867, appropriated water to the amount of twenty-eight cubic feet per second from said river and applied the same to the lands lying under said canal for irrigation purposes, which said appropriation of water has been used continuously by this defendant and its predecessor in title since it was originally made and until the present time.

11. During the year, 1887, the predecessor in title of the defendant, The Oxford Farmers' Ditch Company, constructed a certain irrigating canal known as "The Oxford Farmers' Ditch" in Pueblo and Otero Counties, in the State of Colorado, using the line of the said "Enterprise Ditch" and straightening, enlarging and extending the same, the headgate thereof being located at the point of location of the headgate of the said "Enterprise Ditch" and, on the 26th day of February, 1887, appropriated an additional one hundred and sixteen cubic feet of water

per second from the Arkansas River by means of said canal and applied the same to lands lying thereunder, which said appropriation of water has been used continuously since that date and until the present time by this defendant and its predecessor in title.

12. This defendant, The Oxford Farmers' Ditch Company, was organized as a corporation under the laws of Colorado, on the 11th day of October, 1888, for the purpose, among other things, of owning and operating a canal for the purpose of conveying waters from the Arkansas River for use by the stockholders of said Company in irrigating the lands under said canal, and, pursuant to the purposes of its organization, during the year 1888, it became the owner of the said "Oxford Farmers' Ditch" and all its rights to appropriate water from said river, and has been and now is the owner thereof. There has been expended in the construction of said ditch by its present owner and its predecessor in title over $60,000.

13. During the year 1889 one Henry R. Holbrook commenced the construction of an irrigating canal called the "Lake Canal," in Otero County, Colorado, with its headgate located on the north bank of the Arkansas River in Section Twenty-four (24), Township Twenty-two (22), South of Range Fifty-eight (58), West of the Sixth Principal Meridian. Said ditch is about twenty-five miles in length and has a carrying capacity of five hundred and fifteen cubic feet of water per second, and was built for the purpose of reclaiming and irrigating certain waste and arid lands lying thereunder. Of date the 25th

day of September, 1889, appropriations of water from said river, for said purpose, have been made by means of said canal, to the amount of five hundred and fifteen cubic feet per second, and the appropriations so made have been used continuously until the present time.

14. This defendant, The Laguna Canal Company, was organized as a corporation under the laws of Colorado July 11, 1892, for the purpose, among other things, of acquiring and becoming the owner of the Lake Canal and of the reservoir sites and rights to appropriate and take the waters of the Arkansas River and its tributaries, belonging thereto, and also for the purpose of constructing reservoirs for impounding said waters, the same to be delivered to farmers and others living under said canal, for the irrigation of lands and for domestic purposes. Pursuant to the purposes of its organization, said defendant in 1892 purchased said canal and all reservoir sites and rights of appropriation of water belonging thereto and is now the owner thereof.

15. During the year 1894 this defendant, The Laguna Canal Company, developed and constructed a reservoir called "Reservoir Number One," the same being fed from the Arkansas River by means of the Lake Canal. Water is delivered from said reservoir to lands thereunder for purposes of irrigation by means of an outlet canal about fourteen miles in length. The cost of said canal, reservoir and outlet canal was $150,000.

16. The Rocky Ford Highline Canal, The Catlin Ditch and The Oxford Farmers' Ditch are situ-

ated on the south bank of the Arkansas River in the Counties of Pueblo and Otero, in the State of Colorado, and covers an area of about two hundred square miles, said area having a population of more than eight thousand people. Prior to the construction of said canals said lands were an arid and barren waste fit only for grazing purposes, the amount of rainfall in said locality being insufficient for the cultivation of crops and insufficient to render said territory habitable. Since the construction of said canals all of said territory, except that portion thereof, the topography of which renders it non-irrigable, has been reclaimed and redeemed from its former arid and barren condition by the application of water from said river and its use in irrigating said lands and cultivating the same and in growing crops thereon.

17. With the construction of said canals settlers began to locate on said lands and to acquire title thereto and cultivate the same and to build homes, set out orchards and make other permanent improvements. Cities and towns sprung up, and the City of Rocky Ford and the towns of Manzanola and Fowler are now located in said territory. The City of Rocky Ford is a city of the second class, created such under the laws of Colorado, and has a population of about twenty-five hundred people. In it are located many churches and school houses and other public buildings. Residences and business houses have been constructed and a factory for the manufacture of beet sugar was erected at an expense of about $750,000, in the year 1900.

18. The towns of Manzanola and Fowler are in-

corporated under the laws of Colorado, each with a population of about four hundred and fifty people and in them are also located school houses, churches and many residences and business houses. The said City of Rocky Ford and the said town of Manzanola are in part dependent upon the Rocky Ford Highline Canal and The Catlin Ditch for their water supply for domestic purposes, and said municipalities are owners of water rights in said canals and use the same continually for the purpose of supplying their inhabitants with water. Property values to the amount of three and one-half millions of dollars have been created under said canals by means of the construction thereof and the use of the same in applying water to said lands. The lands have become fertile and productive and capable of yielding and do yield, annually, abundant crops of fruit, grains, alfalfa, sugar beets, melons and other vegetables. The value of said property depends entirely upon the right to divert the waters from said river and apply the same to agricultural and domestic purposes and if these defendants are enjoined from diverting and delivering said water, the communities under said ditches will be depopulated and destroyed, said improvements rendered valueless and said lands return to their former barren and unproductive condition.

19. Lying under said Lake Canal and said Reservoir Number One, owned by this defendant, The Laguna Canal Company, and susceptible of irrigation therefrom, are twenty-two thousand acres of land, and water has been applied to seventen thousand acres thereof for the raising of crops. Prior to the con-

struction of said canal and reservoir said lands were waste and vacant lands, but by means of the construction of said canal and the use thereof, in applying the waters of said river to the lands lying thereunder, said lands have been rendered fertile and productive, and large crops of fruit, grain, alfalfa, melons, sugar beets and other vegetables are raised annually thereon; school houses, churches, dwelling houses and other buildings have been built; and there are now living under said canal and dependent thereon for their water supply for domestic and irrigation purposes six hundred people, who have created property values by means of said canal to the amount of over six hundred thousand dollars. The value of said property depends entirely upon the right to divert water from said river and apply the same to said lands for agricultural and domestic purposes; and if this defendant, The Laguna Canal Company, is enjoined from diverting and delivering said water, the community under said ditch will be destroyed, said improvements rendered valueless and said lands return to their former barren and unproductive state.

20. The said canals were constructed and used in appropriating and applying waters from the Arkansas River for irrigation purposes and said lands were settled and said property values created by these defendants, their predecessors in title and the settlers on said lands, in reliance upon the laws, customs and usages prevailing in the States of Kansas and Colorado respecting the diversion and use of the waters of said states, and in the belief that it was the desire and policy of said State of Kansas and of the

inhabitants and owners of lands in the valley of the Arkansas in said state, that the lands in said valley should be reclaimed and made fruitful and productive by irrigation, and in the further belief that all claims to riparian rights, contrary to or in derogation of the right to divert waters of said river for irrigation purposes had been surrendered and relinquished by said state and by the several owners of lands in said valley.

21. For many years prior to 1882 it was believed and generally claimed by the people living in the valley of the Arkansas River in Kansas and Colorado that there was sufficient rainfall for the cultivation of crops throughout the said valley in Kansas and for many miles westward into Colorado. Following the year 1882 and until the construction of ditches, canals and reservoirs for irrigation purposes there was a constant failure of crops due to the insufficient rainfall, and a large part of the population, which had settled along said river on the strength of the erroneous supposition that the rainfall was sufficient for the cultivation of crops, moved away. The people of the State of Kansas realizing that the lands which had been settled upon were so destitute of moisture and the rainfall so slight as to render them incapable of being cultivated, and that only by diversion and application of the waters of the Arkansas River could agriculture be pursued in western Kansas, induced legislation upon the subject and the Kansas legislature, at is session in 1886, for the purpose of authorizing and allowing the diversion and use of the waters of said river for the purpose of re-

claiming said lands, passed an act concerning irrigation in which it was declared that "The right to the use of running water flowing in a river or stream in this State, for the purpose of irrigation, may be acquired by appropriation."

22. In reliance upon said act of the legislature certain canals were constructed in eastern Colorado and extended into Kansas and certain other canals were constructed lying wholly in the State of Kansas, in the Counties of Hamilton, Kearney, Finney, Gray, Ford, Edwards, Pawnee and Barton, for the diversion of the surface and underflow waters of said river and the application thereof to riparian and non-riparian lands in the valley of said river, in the irrigation and cultivation thereof, most of said ditches being owned by residents and citizens of the State of Kansas, but some of them being owned jointly by residents and citizens of Colorado and residents and citizens of Kansas, and said residents and citizens of Kansas are persons whose alleged rights are claimed by the amended bill of complaint herein to have been impaired by the diversion of the waters of said river in Colorado by this defendant and others.

Among the canals so constructed was one known as "The Dodge City Canal", covering the land in the County of Ford alleged in the bill of complaint to have been conveyed in 1889 to the State of Kansas by the Government of the United States to be used as a Soldiers Home, and also covering other lands along said river for a distance of about thirty miles. Said land in Ford County alleged to belong to the State of Kansas was also covered by another canal known as

"The Eureka Canal", commencing at the town of Ingalls and extending thence eastward about ninety miles.

23. All of the ditches and canals above referred to, as these defendants are informed and believe, have diverted and carried water for the irrigation of the lands lying thereunder when obtainable, and the owners of said lands have used the waters so diverted in the irrigation and cultivation thereof, and have at all times disclaimed and renounced any and all rights they might have to the continuous flow of the surface or underflow of waters of the said Arkansas River in contravention of the right to divert and apply the same to riparian and non-riparian lands in said valley, and the respective owners of said ditches and canals and of the riparian and non-riparian lands thereunder are, as these defendants respectfully suggest, necessary parties to any determination of the right of these defendants to divert and use the waters of said river as they and their grantors have been accustomed to do for many years last past.

24. The construction of the canals now owned and operated by these defendants and of other canals in Colorado and of the said canals in Kansas, and the reclamation and cultivation thereby of the arid and semi-arid lands in the State of Colorado and Kansas were well known to the owners of riparian and non-riparian land throughout the entire valley of the Arkansas in Kansas; detailed accounts of the same were published in all the papers issued in the various towns in said valley and from time to time excursions were taken by many of the people of said valley to

inspect and report upon the irrigation system in vogue in Colorado and in particular the ditches in and about Rocky Ford where the canals belonging to these defendants are located and the owners of non-irrigable lands in said valley were constantly moving to and settling upon lands under said canals and ditches in Colorado and Kansas.

25. Since the year 1886, at intervals to the present time, conventions of the owners of riparian and non-riparian lands in said valley and the citizens thereof have been called and held at towns and cities in said valley in Kansas and Colorado to consider and devise methods for extending the system of irrigation used by said canals in Kansas and in Colorado and full reports of the progress of irrigation in the valley of the Arkansas River in Colorado have at all times been made to said conventions and of the taking of said water from the said river in the State of Colorado and the taking of said water by said canals in Colorado has been at all times acquiesced in, approved and the right to do so confirmed.

26. On February 14, 1889, the Senate of the United States adopted a resolution that a special committee of seven Senators be appointed by the President of the Senate, to be known as "The special committee on the irrigation and reclamation of arid lands," whose duty it should be to consider the subject of irrigation and to investigate and report upon the best mode of the reclaiming public lands of the United States. Said committee was duly appointed and afterwards held sessions at various points in the valley of the Arkansas River in Kansas, at which

sessions it was represented to said committee by the owners of lands along said river that the greater portion of said valley was incapable of being cultivated except by irrigation. That the lands had been taken up by settlers during a cycle of sufficient rainfall to admit of their cultivation and the Government of the United States had received the price of said lands in the belief, on the part of the settlers, that the same was susceptible of cultivation; that it had been found that the rainfall was insufficient to grow crops and that many of those claiming title from the Government had been compelled to leave the country and that the remainder were too poor to construct the irrigation works necessary to cultivate said lands. Constant reference was made to the ditches and canals which had been constructed in the State of Colorado and the beneficial effect secured by the irrigation of lands in said State. No objection or protest was made to the diversion of waters in Colorado nor was any claim made that the waters of said river should continue to flow from the State of Colorado into the State of Kansas as it had formerly done, but, on the contrary, it was urged that the Government should build, or aid in building, reservoirs in the mountains in Colorado in which to impound and store the waters of said river, that the same might thereafter be carried down said river for use in the irrigation of lands in Colorado and Kansas.

27. That since the year 1891 conventions of irrigators and owners of land in the arid west have been held at Salt Lake City, Los Angeles, Denver and other cities. Delegates to said conventions have been

sent by the Governor of Kansas and most of said delegates were selected from the valley of the Arkansas River and appeared in said conventions as special representatives of the owners of lands in said valley. At the convention held in Salt Lake City in September, 1891, delegates from the State of Kansas were instrumental in securing the adoption of resolutions memorializing Congress and the representatives of the states and territories of the arid West to secure appropriations for the construction of ditches and reservoirs for the reclamation of the arid and semi-arid lands in Kansas and other western states and territories by means of irrigation. At said conventions said delegates from Kansas made particular mention of the irrigation works constructed near Rocky Ford and elsewhere along the Arkansas River in Colorado and the same were pointed out in demonstration of what might be accomplished by irrigation, and it was urged that like systems should, by government aid, be constructed in the valley of the Arkansas in Kansas. And it was further urged that the Government should make an irrigation survey of the lands in Kansas to aid those desiring to construct irrigation ditches or canals therein. Like demands were urged by delegates from the State of Kansas in other irrigation congresses with the result that the government of the United States was induced to and did make an irrigation or contour survey of the lands in the valley of the Arkansas for the purpose of aiding in the extension of the irrigable area thereof.

28. On March 10, 1891, the legislature of the

State of Kansas passed an act by which it was provided that in that portion of Kansas west of the 99th Meridian, all natural waters whether surface or subterranean, shall be devoted first to purposes of irrigation in the aid of agriculture, subject to ordinary domestic uses, and secondly to other industrial purposes, and for such purposes they may be diverted from their natural channels. And it was provided by said act that the methods in force in the State of Colorado with reference to the use and sale of waters be adopted; and thereafter, by an act of the legislature, said statute was made applicable to all that portion of Kansas west of the 98th Meridian. On March 5, 1895, by another act of said legislature, the Board of Irrigation Survey and Experiment was created, which was required to conduct experiments in irrigation in the State of Kansas. Thereafter, by another act of said legislature, the office of Commissioner of Forestry and Irrigation was created and an appropriation was made for the maintenance of an experimental station at which the value of irrigation and the best methods thereof should be investigated, and thereafter the Supreme Court of the State of Kansas decided, on the 6th day of July, 1901, that the legislature of Kansas had, by the acts above referred to, recognized the principle of irrigation in said state and made the promotion of irrigation west of the 98th Meridian a public use.

29. These defendants respectfully submit that the State of Kansas is not, as the owner or representative of the owners of lands in said Arkansas Valley in Kansas, entitled to the relief sought in the plain-

tiff's amended bill of complaint against these defendants, because of the acts, doings and conduct of the State of Kansas and the owners of lands in said valley as above set forth, and by the delay of said state in filing said bill, and by the failure of the owners of land in said valley to assert the rights claimed in their behalf by said state, these defendants and the owners of lands under their canals have been induced to make large investments in reliance thereon, and said State of Kansas is in equity and good conscience estopped from now claiming any relief which would impair or destroy said investments.

30. These defendants respectfully submit that aside from the laws, usages and customs concerning irrigation prevailing in the States of Colorado and Kansas the said lands under the canals belonging to these defendants were and are riparian to said river and entitled by the principles and doctrines of the common law claimed by the bill of complaint herein to be applicable in both Colorado and Kansas, to divert the waters of said Arkansas River and to use the same in irrigation thereof, and that the use of said water on said lands for all purposes necessary to making the same habitable and capable of sustaining human life is a reasonable use authorized and protected by the said principles and doctrines of the common law relied upon by the complaint.

III.

These defendants, for further joint and several answer and defense to the amended bill of complaint, say:

1. This defendant, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, is the owner of a certain irrigating canal situate in Pueblo and Otero Counties, in the State of Colorado, known as "The Rocky Ford Highline Canal." Said defendant and its predecessor in title have appropriated water from the Arkansas River to the amount of sixteen cubic feet per second of date July 1, 1869, thirty cubic feet per second of date June 1, 1885, and two cubic feet per second of date March 11, 1886, and used the same continuously since the said date for the irrigation of lands and said appropriation now belongs to the said Rocky Ford Highline Canal; that said defendant has appropriated water from the Arkansas River to the amount of four hundred and twenty-two and one-half cubic feet per second of date January 6, 1890, and used the same continuously since that date for the irrigation of lands and said appropriation now belongs to the said The Rocky Ford Highline Canal.

2. This defendant, The Catlin Consolidated Canal Company, is the owner of a certain irrigating canal situated in Otero County, in the State of Colorado, known as the "Catlin Ditch." Said defendant and its predecessors in title have appropriated water from the Arkansas River to the amount of two hundred and forty-eight cubic feet per second, of date December 3, 1884, and ninety-four cubic feet per second of date December 14, 1887, and have used the same continuously since said dates for the irrigation of lands, and said appropriations now belong to the said Catlin Ditch.

3. This defendant, The Oxford Farmers' Ditch Company, is the owner of a certain irrigating canal, situated in the Counties of Pueblo and Otero in the State of Colorado, known as the Oxford Farmers' Ditch. Said defendant and its predecessors in title have appropriated water from the Arkansas River to the amount of twenty-eight cubic feet per second of date March 1, 1867, and one hundred and sixteen cubic feet of date February 26, 1887, and used the same continuously since said dates for the irrigation of lands, and said appropriations now belong to the said Oxford Farmers' Ditch.

4. This defendant, The Laguna Canal Company, is the owner of a certain irrigating canal, situated in Otero County, Colorado, known as the "Lake Canal." Said defendant and its predecessors in title have made appropriations of water from the Arkansas River by means of said canal to the amount of five hundred fifteen cubic feet per second, of date September 25, 1889, and used the same continuously since the same was appropriated for the irrigation of lands, and said appropriations now belong to the said Lake Canal.

5. After the location of said Lake Canal, the owner thereof, for the purpose of availing himself of the provisions of the act of Congress of March 3, 1891, granting rights of way for irrigation canals and reservoirs, filed with the Register of the United States land office for the district where said canal and reservoir were located, a map of said canal and reservoir, which map was, on the 29th day of April, 1892, approved by the Secretary of the Interior, and there-

after the lands over and across which said canal extended were, when conveyed by the government, conveyed subject to said right of way.

6. During the year 1890 the government of the United States caused certain surveys to be made in the valley of the Arkansas River in the State of Colorado, for the purpose of investigating and selecting reservoir sites and running contour lines for the purpose of aiding and assisting those desiring to appropriate the waters of said stream and its tributaries for irrigation purposes and the government of the United States in making such investigation and in selecting reservoir sites surveyed and located a reservoir site in Township Twenty-three (23), South of Range Fifty-five (55), West of the Sixth Principal Meridian in Otero County, Colorado, on the line of said Lake Canal, and caused to be filed in the office of the Secretary of the Interior a report of said investigation, and surveys and maps of said reservoir site, and caused the land included in said reservoir site to be segregated and withdrawn from entry and filing except as a reservoir site.

7. During the year 1894 this defendant, The Laguna Canal Company, developed and constructed the reservoir, the site of which had been previously filed on, said reservoir being called "Reservoir Number One." Said reservoir is fed from the Arkansas river by means of the Lake Canal and is capable of holding when filled 185,011,890 cubic feet of water. Two thousand acres of lands are irrigated from said reservoir by means of an outlet canal built and owned

by this defendant, which said outlet canal is fourteen miles long.

8. By means of the construction of said canals and said reservoir many thousand acres of land in the valley of the Arkansas River in the State of Colorado, which prior to said construction was waste and vacant land and fit only for grazing purposes, has been reclaimed, cultivated and made fruitful and productive. Many thousands of people have located thereon and built their homes. Cities and towns have sprung up and property values to the extent of many millions of dollars have been created.

9. Prior to the construction of said canals but a small portion of the lands lying in the territory thereunder had been filed on or subjected to private ownership. With the construction of said canals settlers from the arid parts of Colorado and Kansas began filing on said government lands and began to locate homes thereon. More than four thousand three hundred acres of land lying in said territory were located and filed on by settlers and were finally patented by the Government of the United States under an act of Congress approved March 3, 1877, known as "The Desert Land Act." Said lands were patented on the strength of their having been reclaimed by means of the construction of said canals and the application by means of said canals of the waters of said river to the irrigation of said lands and in each instance proof was required by the government of the United States of such reclamation and irrigation before issuing patents to said lands. More than fifty thousand acres of said lands were located and filed

on by said settlers under an act of Congress of May 20, 1862, known as "The Homestead Law," an act of Congress of April 24, 1820, and acts suplemental thereto known as "The Pre-emption Law," an act of Congress of March 3, 1873, and subsequent acts, known as "The Timber Culture Act," and were finally patented by the Govenrment of the United States. The settlers availing themselves of the provisions of the Pre-emption and Homestead purchase acts were required to make settlement on lands in person and to inhabit and improve the same. At the time settlement was made on said lands Congress and the executive departments having in charge the administration of such acts well knew and at all times since said settlements were made they have well known that the provisions of said acts with respect to inhabitancy, settlement and improvement could not be complied with except by the diversion of the waters of the Arkansas River and its tributaries upon said lands and the application thereof to irrigation and domestic purposes.

10. The said canals were constructed and used by these defendants and their predecessors in title for the diversion of the waters of said river in reliance upon the acquiescence of the United States in the appropriation of such waters for irrigation purposes and upon the acts of Congress with reference to reclaiming arid lands and acquiring title thereto from the government, in reliance upon long standing local customs, laws and decisions of the States of Kansas and Colorado by virtue of which customs, laws and decisions the appropriator of water from natural streams first in time is considered first

in right and in reliance upon the recognition by the State of Colorado of the right to appropriate the waters of said state including the waters of the Arkansas River for irrigation purposes.

11. Prior to parting with the title to any of the lands between the Mississippi River and the Pacific coast the general government caused said lands to be explored and reported upon for the purpose of ascertaining the natural resources and the physical and climatic characteristics thereof, whereby it became known to the United States and the inhabitants thereof that from about the 98th Meridian to the coast range of the Pacific slope the land was an arid waste without timber or useful vegetation, except in the mountains, and that although the soil was rich and fertile, the same could not be made productive nor inhabitable except by the diversion of waters in the natural streams and the application thereof to agricultural purposes, and that, in that portion of said domain which lay south of the Arkansas River the laws, customs and usages prevailing, authorized and sanctioned the diversion and use of the water for agricultural and other useful purposes in contravention of the rights of the riparian owners to have such water continually flowing in its natural channel. With knowledge and recognition of such right and custom of the inhabitants of said arid region to divert waters and apply the same to beneficial and necessary uses the United States, in its treaty with Spain of February 22, 1819, and afterwards, in its treaty of January 12, 1828, with the United Mexican States, expressly stipulated and provided, that the use of the

waters of the Arkansas River, and of certain other boundary streams, should be common to the respective inhabitants of both nations, parties to such treaties respectively.

12. Upon and after the creation and admission of the several territories and states of said arid region, including Kansas, both as a territory and state, they recognized, approved and confirmed and from thence hitherto have enforced said doctrine, and rights to water by diversion from the streams of said arid region have been maintained as against all claims of riparian rights in conflict therewith.

13. The Government of the United States, long prior to the sale by it of any of the public lands in the Arkansas valley, recognized and approved said doctrine, and applied the same to said public lands, and renounced and surrendered all riparian rights which it might have asserted in contravention of said doctrine, and from thence hitherto has held and disposed of said lands subject to and in accordance with said doctrine, and has at all times encouraged and promoted the diversion and use of the water of the streams in said arid region for agricultural and mining purposes, and, by grants of public money, has aided in the construction of canals, ditches and reservoirs and other appliances for the diversion, storage and use of water, in the reclamation and cultivation of the public lands.

14. By means of the diversion and use of the waters of said natural streams, many millions of acres of the public lands in said arid region have been settled upon, inhabited and improved and title

thereto obtained from the general government, in the belief that by its action and conduct in the disposition of its public lands, the United States had accepted and applied to said public lands the doctrine of appropriation as hereinbefore set forth; and there has been paid to said general government, on account of said lands so improved by the diversion and use of water in accordance with said doctrine, upwards of twenty millions of dollars, and the greater part of the lands in the valley of the Arkansas in the State of Colorado were settled upon and patents therefor obtained by proof of the diversion and use of the waters of said Arkansas River in the reclamation and improvement of said lands, said diversions so made being those complained of and sought to be enjoined in and by the bill of complaint herein.

15. By the act of Congress approved January 29, 1861, admitting Kansas into the Union, it was specifically provided that the state should never interfere with the primary disposal of the soil within the same by the United States, or with any regulations Congress might find necessary for securing the title in said soil to bona fide purchasers thereof and that all laws of the United States not locally inapplicable should have the same force and effect within said state as in other states in the Union.

Following the admission into the Union of the State of Kansas, said doctrine of appropriation was further recognized by Congress as the law applicable to public lands and the natural streams thereof, including those in the State of Kansas, by the following acts:

An act approved June 26, 1866, by which it was provided that whenever, by priority of possession, rights to the use of water for mining, manufacturing or other purposes, have accrued and are recognized according to local customs, laws and decisions, the owners and possessors shall be maintained and protected in their rights;

An act approved July 9, 1870, in which it was provided that all patents granted, or pre-emptions or homesteads allowed, should be subject to any vested or acquired water right or rights to ditches or reservoirs used in connection with such water rights;

An act approved March 3, 1877, known as "The Desert Land Act" (which by an act approved March 3, 1891, was made applicable to lands in Colorado), declared that all waters of all lakes, rivers and other sources of supply upon the public lands should remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes, and in and by which it is also provided that by the construction of canals and ditches and the application of said waters to the irrigation of the public lands, the title to said land might thereby be obtained from the United States;

An act approved March 3, 1891, confirming the rights of way over the public lands in the arid regions for canals and reservoirs for irrigation purposes;

An act approved August 18, 1894, providing for the conveyance to the several states in the arid region of such public lands as they might reclaim and irrigate;

An act approved June 17, 1902, authorizing and

undertaking the construction of canals, ditches and reservoirs in the arid region, including therein the State of Colorado and the western portion of Kansas, whereby the waters of the public lands might be diverted and used for irrigation purposes, and appropriating for that purpose the proceeds of all moneys received from the sale of public lands in the States of Colorado and Kansas.

16. The Congress of the United States in recognition of the doctrine of appropriation for irrigation purposes of waters of the natural streams in the arid region of the United States, on October 2, 1888, appropriated $229,000 for the purpose of investigating the extent to which said region might be redeemed by irrigation, for the segregation of said irrigable lands in said arid region and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of waters for irrigation; and on March 2, 1889, Congress made a further appropriation of $450,000 for like purposes, all of which money was expended in investigating and selecting reservoir sites and running contour lines for the purpose of aiding and assisting those desiring to appropriate the waters of said streams for irrigation purposes. And the Government of the United States in making such investigation and in selecting reservoir sites surveyed and located a reservoir site on the Apishapa River, which is a tributary of the Arkansas River, in Township Twenty-eight (28), South of Range Sixty-one (61), West of the Sixth Principal Meridian, in Las Animas County, Colorado, and caused to be filed in the office of the Secretary of the

Interior a report of said investigation and surveys and maps of said reservoir site and caused the lands included in said reservoir site to be segregated and withdrawn from entry or filing except as a reservoir site. This defendant, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, on the 2nd day of February, 1898, in reliance upon said reservoir site having been so segregated made its filing thereon in accordance with and under the provisions of Sections 18 and 21 inclusive of the act of Congress approved March 3, 1891, entitled "An Act to Repeal the Timber Culture Laws and for Other Purposes." The object sought by said defendant in filing on said reservoir site was to develope the same and construct a reservoir for the storage of flood waters to supplement the supply of its said canal and said defendant has expended in surveying said site and filing on the same and in preliminary work in the construction of said reservoir the sum of $1,500.

17. All grants and patents of land in the valley of the Arkansas, in the State of Kansas, were made by the United States, subject to the doctrine of appropriation heretofore set forth, and were accepted by the several grantees thereof with the knowledge that in the sale and disposition of the arid lands of the United States along said Arkansas River west of the 97th Meridian, it had been and would be necessary to divert and use the waters of said river in the improvement and cultivation thereof, and said grants and patents of lands in the State of Kansas were made subject to the right of all persons desiring the use of the same for agricultural purposes to appro-

priate the waters of the Arkansas River, either in Kansas or Colorado, to the full extent of said river, and all patents granted and pre-emptions and homesteads allowed of lands in the valley of the Arkansas in the State of Kansas subsequent to July 9th, 1870, including in particular the lands described in the bill of complaint situated in Ford County, conveyed to said State of Kansas by the United States on the 13th day of June, 1889, and the lands in Reno County described in said bill of complaint conveyed to said State of Kansas at divers times subsequent to said 9th day of July, 1870, were, by the act of Congress of July 9th, 1870, made subject to all water rights in said river and rights of ditches and reservoirs in connection therewith acquired in accordance with the local customs, laws and decisions of Colorado.

18. The territory of Kansas by its legislature, recognized and approved the said doctrine of appropriation, and in pursuance thereof in 1859 authorized the St. Charles Town Company to divert the waters of the South Platte River and Cherry Creek, and the Mountain Company to divert the waters of the Platte River, and the El Paso Town Company to divert the waters of the tributaries of the Arkansas River heading at Pike's Peak; and in 1860 authorized the Capital Hydraulic Company to divert for irrigation purposes all the waters of the South Platte River and Cherry Creek. And the State of Kansas, by its legislature, has also recognized, approved and adopted said doctrine; an act of said legislature enacted in 1868, authorizing corporations to construct canals diverting water for irrigation purposes; an act of the

legislature enacted in 1886, providing that the running waters of the State might be appropriated for purposes of irrigation; an act of said legislature enacted in 1891, providing that in all that portion of the state west of the 99th Meridian all natural waters, whether standing or running and whether surface or subterranean, should be devoted first, to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses; and, second, to other industrial purposes, and might be diverted from natural beds, basins or channels for such purposes and uses; and another act, enacted in 1895, providing for the development of the lands west of the 98th Meridian by irrigation and regulating the distribution of water in the same manner as in Colorado. Said state by said several acts renouncing and surrendering all rights it may have had in said river or the lands adjacent thereto as riparian owner in contravention of the right to divert the waters thereof for irrigation in Kansas or Colorado. And in reliance upon the approval and adoption of said doctrine of appropriation by said State of Kansas, about five hundred miles of canals and ditches have been constructed in Kansas, west of the 97th Meridian at a cost approximating two million dollars and thereby the waters of said Arkansas River have been appropriated and applied to about one hundred and fifty thousand acres of land in the valley of said river, in the State of Kansas.

19. The inhabitants of the State of Kansas residing in the valley of the Arkansas River have at all times since the year 1882 or thereabouts encouraged

the construction of ditches and reservoirs along said river and its tributaries for the purpose of irrigation and have by their own acts been instrumental in inducing the Government of the United States to make surveys of lands along said river and its tributaries in Colorado and Kansas to aid those desiring to construct ditches or canals, and the Supreme Court of the State of Kansas on the 1st day of July, 1901, decided and adjudged that the legislature of Kansas had by the acts above mentioned recognized the principle of irrigation in the State of Kansas and made the promotion of irrigation west of the 98th Meridian a public use.

20. The provisions of the Constitution of the State of Colorado set forth and complained of in the bill of complaint, were adopted in harmony with and in pursuance of the policy of the United States in respect to the diversion and use of water in the irrigation of lands, and the same do not conflict with or contravene any act of Congress bearing upon said appropriation and use, but, on the contrary, are intended as a constitutional guaranty that the right to divert water for beneficial purposes as authorized and encouraged by the acts of Congress referred to shall never be denied, and said provisions were accepted and approved by the action of Congress in admitting Colorado into the Union, and the several acts of the legislature of Colorado, referred to in said bill of complaint, have been enacted for the purpose of protecting and regulating appropriations made in pursuance of the usages and customs prevailing in the arid region and the right of appropriation as re-

cognized and confirmed by the acts of Congress referred to.

21. The State of Colorado has always recognized, and now recognizes, the common law right of riparian proprietors along the said Arkansas River in Colorado to make a reasonable use of the water thereof for irrigation purposes, said right being recognized by said state as a natural want and necessity for people living in a hot and arid climate such as exists along said river from the foothills of the mountains, where it has its source, to the eastern border of the state.

IV.

These defendants, for further joint and several answer and defense to the amended bill of complaint, say:

1. These defendants and their predecessors in title have appropriated waters from the Arkansas River for the purpose of irrigation, and have applied said waters to such purpose on the lands lying under their several irrigating canals in the valley of the Arkansas River in the State of Colorado, said appropriations having been used continuously since they were originally made. The amounts of said appropriations, the dates when they were originally made and the names of the canals to which they belong, are as follows:

The Oxford Farmers' Ditch, owned by the defendant, The Oxford Farmers' Ditch Company, twenty-eight cubic feet per second, of date March 1, 1867.

The Rocky Ford Highline Canal, owned by the

defendant, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, sixteen cubic feet per second, of date July 1, 1869.

The Catlin Ditch, owned by the defendant, The Catlin Consolidated Canal Company, two hundred and forty-eight cubic feet per second, of date December 3, 1884.

The Rocky Ford Highline Canal, thirty cubic feet per second, of date June 1, 1885.

The Oxford Farmers' Ditch, one hundred and sixteen cubic feet per second, of date February 26, 1887.

The Rocky Ford Highline Canal, two cubic feet per second, of date March 11, 1886.

The Catlin Ditch, ninety-seven cubic feet per second, of date November 14, 1887.

The Lake Canal, owned by the defendant, The Laguna Canal Company, five hundred and fifteen cubic feet per second, of date September 25, 1889.

The Rocky Ford Highline Canal, four hundred twenty-two and one-half cubic feet per second, of date January 6, 1890.

2. The said canals were constructed and used in irrigating lands lying thereunder in accordance with and in reliance upon the local customs, laws and decisions of the courts of the State of Colorado respecting the right to appropriate and use water for agricultural and other purposes, in force at the time said appropriations were made. The right to appropriate the waters of said river by means of said canals for irrigating purposes to the extent to which said appropriations were made, as hereinbefore set

out, was, in the year 1896, as to those appropriations made by the Rocky Ford Highline Canal and the Oxford Farmers' Ditch, in proceedings then pending in the District Court of the County of Pueblo, in the State of Colorado, which said proceedings were had in accordance with the acts of the General Assembly, of the State of Colorado of 1879 and 1881 concerning the adjudication of rights to water for irrigating purposes, recognized and confirmed, and said right of appropriation adjudged to be vested as of the dates of the respective appropriations. The right to appropriate the waters of said river by means of the said Catlin Ditch for irrigating purposes to the extent to which said appropriations were made as hereinbefore set forth, was in the year 1891, in a like proceeding then pending in the District Court of Bent County in the State of Colorado, also recognized, and adjudged to be vested as of the dates of the approriations made by means of said canal. The right to appropriate the waters of said river by means of the said Lake canal for irrigating purposes was also, in the year 1894, in like proceedings in the District Court of Bent County in the State of Colorado, recognized and adjudged to be vested in said canal to the extent of one hundred fifty-five cubic feet of water per second, as of date September 25, 1889.

3. The lands belonging to the State of Kansas, and used as a Soldiers' Home, as alleged in the amended bill of complaint, which were acquired from the Government of the United States on the 13th day of June, 1889, were taken by the State of Kansas sub-

ject to all the appropriations of water from said river, made as hereinbefore set out, except said appropriation made by the Lake Canal, and said appropriation of January 6, 1890, made by the Rocky Ford High Line Canal. All other lands in the valley of the Arkansas, acquired from the Government of the United States since the dates of the respective appropriations of water hereinbefore set out, were conveyed and taken subject to said appropriations.

4. As to all the lands in the valley of the Arkansas in Kansas acquired since the appropriation of said waters through said canals as hereinbefore set forth, the State of Kansas is not entitled, as against the canals belonging to these defendants, to the relief demanded in the amended bill of complaint herein; and these defendants further rspectfully submit that the owners of the lands in said valley are necessary parties to the determination of the rights claimed by the bill of complaint herein, and that they should be made parties plaintiff hereto and be compelled to set forth the dates of the several conveyances to them by the Government of the Unitd States, of the lands now owned by them in said valley.

V.

These defendants, for further joint and several answer and defense to the amended bill of complaint, say:

1. This defendant, The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company, is the owner of a certain irrigating canal situate in Pueblo and Otero Counties, in the State of Colorado, known as

"The Rocky Ford Highline Canal." Said defendant and its predecessor in title have appropriated water from the Arkansas River to the amount of sixteen cubic feet per second of date July 1, 1869, thirty cubic feet per second of date June 1, 1885, and two cubic feet per second of date March 11, 1886, and used the same continuously since the said dates for the irrigation of lands and said appropriation now belongs to the said Rocky Ford Highline Canal.

2. This defendant, The Catlin Consolidated Canal Company, is the owner of a certain irrigating canal, situated in Otero County, in the State of Colorado, known as the "Catlin Ditch." Said defendant and its predecessor in title have appropriated water from the Arkansas river to the amount of two hundred and forty-eight cubic feet per second of date December 3, 1884, and have used the same continuously since said date for the irrigation of lands, and said appropriation now belongs to the said Catlin Ditch.

3. This defendant, The Oxford Farmers' Ditch Company, is the owner of a certain irrigating canal, situated in the counties of Pueblo and Otero, in the State of Colorado, known as the Oxford Farmers' Ditch. Said defendant and its predecessor in title have appropriated water from the Arkansas River to the amount of twenty-eight cubic feet per second of date March 1, 1867, and used the same continuously since said date for the irrigation of lands, and said appropriation now belongs to the said Oxford Farmers' Ditch.

4. The diversion and use of the waters of said river have continued each and every year since they

were originally made and until the filing of the amended bill of complaint herein, adversely to and in denial of the right of each and every riparian owner along said river in Kansas, as well as each and every owner of land in said Arkansas valley in Kansas, to the usual and ordinary flow of said river in Kansas over or along any of said lands as it had been accustomed to flow prior to the diversion of said waters by these defendants, and in denial of any right of the riparian owners along said stream or of lands in the vicinity thereof to the flow of the water of said stream, except as the same might continue after the diversion, through and by means of the canals owned and operated by these defendants, of the waters of said river necessary to the irrigation of said lands lying thereunder.

5. The diversion of the waters of the Arkansas river in Colorado for irrigation purposes commenced many years prior to the construction of any of the canals owned by these defendants or their predecessors in title and the flow of water in said river has been diminished by said appropriations and each and every owner of land along said river in Kansas well knew that said canals, as well as all other canals along said river in the State of Colorado, were diverting and using said waters adversely to and in derogation of any and all rights which they might claim or possess as riparian owners with respect to the waters of said Arkansas River.

6. These defendants respectfully submit that by the statutes of the State of Kansas concerning the limitation of actions, the right of each and every

owner of land along said Arkansas river in Kansas to the usual and ordinary flow of said river, as the same existed prior to the appropriation of said waters in the State of Colorado, and in particular prior to the appropriation and diversion through and by means of the canals of these defendants and their predecessors in title made on or prior to March 11, 1886, became and are lost by fifteen years adverse use thereof and all right of action concerning said waters became barred after the expiration of fifteen years from the commencement of the assertion and exercise of said adverse right.

VI.

These defendants, for further joint and several answer and defense to the said amended bill of complaint, say:

1. The diversion of waters from the Arkansas River by these defendants through their said canals does not in any way result in injury to the State of Kansas or to the owners of land in said state along said river or in the valley thereof, nor does it by any substantial amount diminish the usual and ordinary flow of water in said river in western Kansas. Many of the appropriators and users of water from said canals are the owners of lands riparian to said river and own land bordering on said river, which land said canals were built to irrigate. None of the lands under said canals are outside of the valley of said river and all of the water applied to said lands for irrigation purposes after leaving said canals flows toward said river and a large part of the same finds its way back into said river.

2. The Arkansas River leaves the foothills of the Rocky Mountains at an elevation of about six thousand feet above sea level, and thence flows eastward over an elevated plateau known as the "Great Plains" for several hundred miles, with a practically uniform descent to the east, passing into the State of Kansas at an elevation of 3,350 feet and into the territory of Oklahoma at an elevation of 1,000 feet. Through Colorado and Kansas it has a broad, level bed of sand, seldom entirely covered with water, the ordinary flow running in thin sheets in tortuous and constantly changing channels in the river bed. From the mountains, for four hundred miles eastward, the watershed of said river is naturally barren, treeless and without any vegetation, except the short sparse grass common to the Great Plains. The annual precipitation of moisture is about fourteen inches, most of which falls in local and violent storms. In its uncultivated condition, the land rapidly sheds the rainfall, discharges it into the river and prevents the saturation of the soil and the formation of springs by which said river and the tributaries along its course might be fed. The tributary streams are usually dry, carrying and discharging water into the river only in case of storms. The sun is seldom obscured, and commencing near the state line between Colorado and Kansas, and continuing eastward for at least two hundred miles, the winds are dry and constant, in the summer season becoming so heated as to burn and destroy the vegetation and to absorb such water as

may be in the bed of said river. The waters supplied to said river for about four hundred miles of its course after leaving the mountains are irregular in discharge and constantly varying in quantity, and are not sufficient to cause a steady and permanent flow during any season of the year. The main supply of the river is from the snows and storms in the mountains. As the snow melts only during warm days, this supply is also irregular and uncertain and the volume of water in the river, therefore, changes daily and even hourly. Long before irrigation was practiced in Colorado, it was observed that as the waters from the mountains flowed eastward, the volume constantly diminished, and this diminution was the more marked as the river passed beyond the area of local storms caused by the mountains. During the summer season except when flooded by violent showers, the river, at a distance of from two hundred to four hundred miles from the mountains, would show no surface water other than occasional pools in the sand, and none of the water coming into said river in Colorado would flow to or across the lands in the central or humid portion of Kansas.

3. The usual and ordinary flow of said river into the State of Kansas, as it is claimed to have been prior to the diversion of water in Colorado by these defendants and others, has been materially diminished by the destruction of timber in the water shed of said river in the mountains, the removal of the

protection, which said timber afforded, causing the snow to melt much earlier in the summer season than heretofore and to come down in floods, instead of a long sustained flow. The breaking up and tilling of the land lying on both sides of said river, which, in its natural condition, was hard and which rapidly drained the water falling thereon, and the raising of crops on said lands, both in Colorado and western Kansas, for a distance of about two hundred miles, has caused the rainfall on said lands to sink into the earth, instead of passing rapidly to the river, and as said lands so broken and tilled lie along the course of the river, they have also intercepted the surface run-off from the drainage area back of and above said lands.

4. By said artificial application of water and by the interception of the rain falling and draining upon said lands, the same condition has been and is being produced that obtains where rainfall is abundant. The lands have become saturated, veins and channels of water are thereby created and as the water seeks a lower level, it exudes by springs or swampy lands into the gulches and waterways, making them perennial streams discharging a uniform flow of water into the river.

These defendants now having fully answered all the allegations in the plaintiff's amended bill of complaint, or so much thereof as these defendants are ad-

vised should be answered, ask to be hence dismissed with costs and charges in this behalf sustained.

The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company,

by W. A. Colt President

The Catlin Consolidated Canal Company,

by J. N. Beaty Secty.

The Oxford Farmers' Ditch Company,

by T. J. Bernard President

The Laguna Canal Company,

by E. H. R. Holbrook President

Fred O. Dalzell

Solicitor of

The Rocky Ford Canal, Reservoir, Land, Loan and Trust Company,

The Catlin Consolidated Canal Company,

The Oxford Farmers' Ditch Company,

The Laguna Canal Company.

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NOV 11 1903

JAMES H. McKENNEY,
Clerk.

United States Supreme Court

OCTOBER TERM, 1906

3 Orig'l.
C. T. 1906

THE STATE OF KANSAS,
Complainant,
vs.
THE STATE OF COLORADO,
ET AL.,
Defendants.

Original Proceeding
No. 8

ANSWER OF THE COLORADO FUEL AND IRON COMPANY TO AMENDED BILL.

DAVID C. BEAMAN,
Solicitor for The Colorado
Fuel and Iron Company.

CASS E. HERRINGTON.
FRED HERRINGTON,
E. PARMALEE PRENTICE,
Of Counsel.

THE SMITH-BROOKS PRINTING CO., DENVER.

United States Supreme Court

OCTOBER TERM, 1903.

THE STATE OF KANSAS, *Complainant,* vs. THE STATE OF COLORADO, ET AL., *Defendants.*	Original Proceeding No. 7.

ANSWER OF THE COLORADO FUEL & IRON COMPANY TO THE AMENDED BILL OF COMPLAINT.

I. IN RELATION TO THE AVERMENTS OF THE AMENDED BILL.

1. This defendant, now and at all times hereafter, saving to itself all and all manner of benefit or advantage of exception or otherwise that can or may be had or taken to the many errors, uncertainties and imperfections in the said amended bill contained, for answer thereto, or to so much thereof as this defendant is advised it is material or necessary for it to answer, says:

1. That it admits that the rise, course, drainage area and general physical characteristics of the Arkan-

sas River and of the valley thereof, except as hereinafter set forth, are as stated in said amended bill of complaint.

2. It denies that the said Arkansas River is in fact, or within the laws or departmental rules and regulations of the United States, a navigable stream, either within the State of Colorado or the State of Kansas.

3. It denies that any diminution of the flow of said river from the State of Colorado into the State of Kansas is wholly or mainly attributable to the diversion of the waters of said river in the State of Colorado; and denies that the normal flow of said river at the state line, in the absence of irrigation, for ten months, or for any considerable period during the year, is upward of 2,000 cubic feet per second, or any amount in excess of 500 cubic feet per second.

4. It admits that the ordinary and usual rainfall in the valley of said river west of the ninety-eighth meridian is inadequate for the growing and maturing of cultivated crops; and avers that in that portion of the State of Kansas, the inhabitants thereof have been, and are, appropriating the water from said river and using the same for the irrigation of lands and other purposes as has been practiced in the State of Colorado for more than forty years past.

5. It denies that from time immemorial, or at all, the waters of said river have flowed through underlying sand and gravel, extending in width under the entire valley of the Arkansas River, or any material portion thereof; and denies that any part of the course and flow of said river is beneath the surface of the bottom lands of the valley, or that the course or

flow thereof is of any greater width than the channel of said river between its banks, or that there is any underflow of water co-extensive with the valley of said river passing from the State of Colorado into the State of Kansas, or through said State of Kansas; and denies that the alleged underground water of said river furnishes sufficient moisture to grow ordinary farming crops in the absence of rainfall, unless supplemented by water obtained and applied by a system of irrigation such as is in use in Colorado and in the western part of Kansas.

6. It denies that the flow of the river or the underground waters to any appreciable extent tends to cool or moisten the surrounding atmosphere, promote the growth of vegetation, enhance the value of lands or conduce directly or materially to the public health or the habitability of the valley; and avers that such results throughout the arid and semi-arid portions of Kansas can only be produced by the diversion of water from the river and the application of the same by a system of irrigation to the adjoining lands, and the cultivation thereof.

7. It denies that the value of the lands in the valley of the Arkansas in said State of Kansas is, in any degree, dependent upon the natural and normal flow of water in said river; and denies that the acts alleged to have been done by this defendant are wrongful; and denies that, by reason of said alleged acts, the value of lands in the valley of the Arkansas River in the State of Kansas has been diminished in any sum whatever, or that the revenue of the State of Kansas arising therefrom has been, or will be, in any wise injuriously affected.

8. It admits the acquisition by the State of Kansas of the lands mentioned in said bill of complaint and the conveyance of certain portions thereof to the grantees mentioned therein; and alleges that all of said lands so acquired by said State of Kansas, and held by its grantees, as well as all lands acquired by settlers by homestead, pre-emption or purchase, were at all times, and now are, subject to the rights of other proprietors of lands and industrial enterprises in the valley of the Arkansas higher up said stream, and in Colorado and Kansas, to appropriate the water of said river and use the same for irrigation, manufacturing and other purposes.

9. It denies that the Arkansas River is now, or at any time has been, a navigable river in the State of Kansas or Colorado, or treated as such, or that the title to the bed of said river in the State of Kansas ever passed to said state, or that said state now is, or ever has been, the owner thereof or entitled to the control thereof, or has ever attempted to control the same save and except by acts of its legislature, as hereinafter referred to.

10. It has no knowledge of the several conveyances or grants of land in the valley of said river in the State of Kansas, heretofore made by the United States, except as hereinafter set forth, and avers that all of the conveyances or grants referred to in said bill of complaint, including in particular the lands alleged to be owned by said State of Kansas, were made subject to all rights to water from said river theretofore and thereafter to be acquired, and were taken with full knowledge on the part of said State of Kansas, and by each and every grantee of said lands,

that the water of said river had been, were being and would be, appropriated in the State of Colorado for beneficial uses, and that the lands in said valley in the State of Kansas west of the ninety-eighth meridian, and in the State of Colorado, could only be made available by like appropriation and use, and that the United States, as the primary owners of said lands, had assumed that they held the same subject to the appropriation of the water of said river for beneficial uses, and that all patents of land granted after July 9, 1870, should be subject to all vested and acquired water rights in or over said river.

11. It denies that the lands alleged in said bill to belong to the State of Kansas, and situated in the counties of Ford and Reno, depend for their value for farming purposes upon the flow of water in the bed of said river, or upon the underflow beneath said land, or that they are entitled to the full, free and natural flow of water in said river to or beneath said land; and denies that the rights of the State of Kansas, as the owner thereof, are prior or superior to the rights of this defendant, as hereinafter more particularly set forth.

12. It denies that the diversion of the water of the Arkansas River by this defendant, and the use thereof, in any degree whatever diminishes the ordinary and usual flow of water in said State of Kansas, but, on the contrary, avers that, as a result thereof, and of its reservoirs for the storage of the flood and storm waters thereof, as hereinafter more particularly set forth, the average flow of water into said State of Kansas, outside of flood and storm periods, is thereby increased instead of diminished.

13. It denies that it is carrying any of the water of said river through its ditches or canals, to lands not riparian to said river.

14. It denies that when the Territory of Kansas was created, or the State of Kansas admitted to the Union, the water of said Arkansas River was wholly unappropriated, or that the common law and the riparian rights claimed in said bill extended over said valley in the State of Kansas, or that the owners of lands along said river were entitled to the unimpeded flow of the water of said river; but, on the contrary, avers that numerous appropriations of said water had been made for irrigation and other purposes long prior to the creation of said Territory and many more were made prior to the conveyance by the United States of any of the lands lying along or adjacent to said river, and that the necessity and right to divert the water of said river for beneficial uses had, long previous to the creation of said territory, been asserted and exercised by persons in possession of said lands, and said necessity and right were thereafter recognized by the legislature of the Territory of Kansas, and all lands along said river acquired by the State of Kansas, or by individuals or corporations within the Territory or State of Kansas, were taken and held with full knowledge of the climatic conditions which made necessary the diversion and use of the water of said river west of the ninety-eighth meridian, and that appropriations had been, were being and would be, made west of the ninety-eighth meridian within the States of Kansas and Colorado, and that, to the extent of said appropriations, the flow of water of said river might, by the laws, usages and customs then prevailing, be lawfully impeded.

15. It denies that, by its taking of water from said river in the State of Colorado, through its canals and ditches, and the use thereof, as hereinafter stated, the State of Kansas, or any of its citizens, or the owners of land along said river in the State of Kansas, have been injured in any degree whatever, or that the fertility of the lands or the use thereof to the fullest extent to which the same are naturally capable of use, have been diminished or impaired, or that the crops, trees and vegetation growing along said river have perished, or will perish, or that the wells have become, or will become, dry, or that the salubrity or healthfulness of said valley, or of the lands adjacent to said river, have been, or will be, impaired.

II. THE INITIATION AND GROWTH OF THE DOCTRINE OF APPROPRIATION OF WATER FOR IRRIGATION, MANUFACTURING AND OTHER PURPOSES.

1. This defendant avers that, beginning with the earliest settlement in the arid region of the United States, which was long prior to the opening of the lands to pre-emption and purchase, by necessity, common consent and uniform usage, the doctrine obtained that the water of all natural streams flowing through said arid region was subject to diversion, appropriation and use for agricultural and other purposes; that the right to the water thus diverted could be acquired, both as against the United States as the owner of the public lands, and as against all grantees of the United States of lands lying along said streams, and that the

right of the several appropriators from any given stream should be in the order of appropriation and use, the first in time being first in right, and said doctrine has at all times been, and now is, the settled usage and law of said arid region in respect to the natural streams thereof.

2. Upon the creation and admission of the several territories and states of said arid region, including Kansas, their people and governments recognized, approved and confirmed, and from that time until now have enforced said doctrine, and rights to water by diversion from the streams of said arid region have been maintained as against all riparian rights in conflict therewith.

3. The United States, long prior to the sale of any of the public lands in the Arkansas valley, recognized and approved said doctrine, and applied the same to said public lands, and renounced and surrendered all riparian rights which they might have asserted in contravention of said doctrine, and from thence hitherto the United States have held and disposed of said lands subject to and in accordance with said doctrine, and at all times encouraged and promoted the diversion and use of the water of the streams in said arid region for agricultural, manufacturing and mining purposes, and by grants of public money aided in the construction of canals, ditches and reservoirs and other appliances for the diversion, storage and use of water, in the conversion and cultivation of the arid public lands, and for other beneficial uses.

4. By means of the diversion and use of the water of said natural streams, many million acres of the

public lands in said arid region have been settled upon, inhabited and improved and title thereto obtained from the United States, in the belief that, by such action and conduct in the disposition of public lands, the United States had accepted and applied to said public lands the doctrine of appropriation as hereinbefore set forth; and there has been paid to the United States, on account of said lands so improved by the diversion and use of water in accordance with said doctrine, more than $20,000,000, and the greater part of the lands in the valley of the Arkansas, in the State of Colorado, were settled upon and patents therefor obtained by proof of the diversion and use of the water of said Arkansas River in the reclamation and improvement of said lands, said diversions so made being those complained of and sought to be enjoined in and by the amended bill of complaint herein.

5. The Territory of Kansas, by its legislature, recognized and approved the doctrine of appropriation, and in pursuance thereof in 1859 authorized The St. Charles Town Company to divert the waters of the South Platte River and Cherry Creek, and The Mountain Company to divert the waters of the Platte River, and The El Paso Town Company to divert the waters of the tributaries of the Arkansas heading at Pike's Peak; and in 1860 authorized The Capital Hydraulic Company to divert all the waters of the South Platte River and Cherry Creek. And the State of Kansas has also recognized, approved and adopted said doctrine by an act of its legislature in 1868, authorizing corporations to construct canals diverting water for irrigation purposes; an act of its legislature in 1886, providing that the running waters of the state might

be appropriated for purposes of irrigation; an act of its legislature in 1891, providing that in all that portion of the state west of the ninety-ninth meridian all natural waters, whether standing or running, and whether surface or subterraean, should be devoted, first, to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses; and, second, to other industrial purposes, and might be diverted from natural beds, basins or channels for such purposes and uses; and another act in 1895 providing for the development of the land west of the ninety-eighth meridian by irrigation and regulating the distribution of water in the same manner as in Colorado. Said State of Kansas, by said several acts renouncing and surrendering all rights it may have had in said river or the lands adjacent thereto as riparian owner in contravention of the right to divert the waters thereof for beneficial uses in Kansas and Colorado.

6. By the act of Congress approved January 29, 1861, admitting Kansas into the Union, it was specifically provided that the state should never interfere with the primary disposal of the soil within the same by the United States, or with any regulations Congress might find necessary for securing the title in said soil to bona fide purchasers thereof, and that all laws of the United States not locally inapplicable should have the same force and effect within said state as in other states of the Union.

7. Following the admission into the Union of the State of Kansas, said doctrine of appropriation was further recognized by Congress as the law applicable to the public lands and the natural streams thereof, including those in the State of Kansas, by the following acts:

An act approved July 26, 1866, by which it was provided that whenever, by priority of possession, rights to the use of water for mining, manufacturing or other purposes, have accrued and are recognized according to local customs, laws and decisions, the owners and possessors shall be maintained and protected in their rights;

An act approved July 9, 1870, in which it was provided that all patents granted, or pre-emptions or homesteads allowed, should be subject to any vested and acquired water right or rights to ditches and reservoirs used in connection with such water rights;

An act approved March 3, 1877, known as "The Desert Land Act," which declared that all waters of all lakes, rivers and other sources of supply upon the public land should remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes, and in and by which it was also provided that by the construction of canals and ditches and the application of said waters to the irrigation of the public lands, the title to said lands might thereby be obtained from the United States;

An act approved March 3, 1891, confirming the rights of way over the public lands in the arid region for canals and reservoirs for irrigation purposes;

An act approved August 18, 1894, providing for the conveyance to the several states in the arid region of such public lands as they might reclaim and irrigate;

An act approved June 17, 1902, authorizing and undertaking the construction of canals, ditches and reservoirs in the arid region, including therein the

State of Colorado and the western portion of Kansas, whereby the waters of the public lands might be diverted and used for beneficial purposes, and appropriating for that purpose the proceeds of all moneys received from the sale of public lands in the states of Colorado and Kansas.

8. Under and by virtue of said act approved March 3, 1877, which was made applicable to lands in Colorado by an act approved March 3, 1891, several thousand acres of land in the Arkansas Valley, in the State of Colorado, were irrigated and converted, and the diversions of water for said purposes are in part the diversions complained of in the said bill.

9. Said doctrine was further recognized by Congress by the appropriation, on October 2, 1888, of $229,000 for the purpose of investigating the extent to which the arid region of the United States might be redeemed by irrigation, and for the segregation of the irrigable lands in such arid region, and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of water, and also by a further appropriation made on March 2, 1889, of $450,000 for the like purpose, all of which moneys were expended in investigating and selecting reservoir sites, and in running contour lines for the purpose of aiding and assisting those desiring to appropriate and use the waters of the natural streams.

10. The provisions of the Constitution of the State of Colorado complained of were adopted in harmony with and in pursuance of the policy of the United States in respect to the diversion and use of water,

and the same do not conflict with or contravene any act of Congress, but, on the contrary, are in harmony with such acts and are intended as a constitutional guaranty that the right to divert water for beneficial purposes as authorized and encouraged by the acts of Congress should never be denied, and said provisions were accepted and approved by the action of Congress in admitting Colorado into the Union, and the several acts of the legislature of Colorado, referred to in said bill have been enacted for the purpose of protecting and regulating appropriations made in pursuance of the usages and customs prevailing in the arid region and the rights of appropriation as recognized and confirmed by the acts of Congress.

11. All grants and patents of land in the valley of the Arkansas, in the State of Kansas, were made by the United States, subject to the doctrine of appropriation heretofore set forth, and were accepted by the several grantees thereof with the knowledge that in the sale and disposition of the arid lands of the United States along said Arkansas River west of the ninety-seventh meridian, it had been and would be necessary to divert and use the water of said river in the improvement and cultivation thereof and for other purposes, and said grants and patents of lands were made subject to the right of all persons desiring the use of the water for beneficial purposes to appropriate the water of the Arkansas River, either in Kansas or Colorado, to the full extent of said river, and all patents granted and all pre-emptions and homesteads allowed of lands in the valley of the Arkansas in the State of Kansas subsequent to July 9, 1870, including in particular the lands described in the bill situated in Ford county,

conveyed to said State of Kansas by the United States on the 13th day of June, 1889, and the lands in Reno county described in said bill and conveyed to the said State of Kansas at divers times subsequent to said 9th day of July, 1870, were, by the act of Congress of July 9, 1870, made subject to all water rights in said river, and rights of ditches and reservoirs in connection therewith acquired in accordance with the local customs, laws and decisions of Colorado.

12. The lands in Ford county alleged by the bill to have been obtained by said State of Kansas by purchase from the United States in the year 1889 and used as a soldier's home, as well as all other lands in the valley of the Arkansas, in the State of Kansas, acquired from the United States since the admission of said state into the Union in 1861, were conveyed and taken subject to the appropriation and use of the waters of said Arkansas River by this defendant as hereinafter set forth.

13. This defendant respectfully submits that as to all lands in the valley of the Arkansas in Kansas acquired subsequent to the appropriation of water by this defendant as herein set forth, the State of Kansas is not entitled to the relief demanded; and that the owners of lands in said valley are necessary parties to a determination of the rights claimed by the bill herein, and that they should be made parties hereto and compelled to set forth the dates of the several conveyances to them by the United States of the lands now owned by them in said valley.

III. THE RECOGNITION AND APPLICATION BY THE STATE OF KANSAS AND ITS CITIZENS OF THE DOCTRINE OF APPROPRIATION; THE CONSEQUENT DEFECT OF PARTIES AND THE WANT OF GOOD FAITH IN NOT AVOIDING THE CONSEQUENCES OF ACTS DONE BY ITS OWN CITIZENS.

1. This defendant further avers that beginning as early as the year 1861 and ever since, a great many citizens and corporations in Colorado, as well as Kansas, have constructed and maintained numerous and expensive reservoirs and ditches for the irrigation of their lands in Colorado and Kansas, and for other purposes, and have taken water therefor from the Arkansas River and its tributaries, and appropriated the same for the purposes aforesaid, believing that they had a legal right so to do, and relying upon the laws of the Unted States and of the States of Colorado and Kansas, which recognize that priority of appropriation gives priority of right to the water so appropriated; and relying also upon, and in accordance with the custom which had grown up among the citizens of the United States and of said states in pursuance of such laws. That in consequence of the appropriation and use of such water, large and populous towns and cities have grown up, and many large farms have been improved and made valuable both in Colorado and Kansas, and the continuance of these towns, cities and farms, and of the prosperity of the people of the arid regions of Colorado and Kansas, depend upon the continued appropriation and use of such

waters as aforesaid. All of which, and the effect, if any, of such appropriation and use of said water, was during all said time well known to the State of Kansas and to the citizens it claims to especially represent in this suit.

2. That many persons and corporations who were for many years prior to the filing of the original and amended bill herein, ever since have been and now are residents and citizens of Kansas, have continuously during said time appropriated, conducted by ditches to, and used upon their arid lands in said state, not riparian or abutting upon, or situated near the bed of the Arkansas river, water for irrigating such lands and other purposes, doing so, and claiming the right to do so, under and by virtue of the laws of the United States and of the State of Kansas relating to the appropriation and use of water for beneficial purposes.

That said persons and corporations are interested adversely to the claim of plaintiff, as asserted in this suit, and will be injuriously affected by the result if plaintiff succeeds.

That the names of some of them, and a description of the lands they have and do so own and water are as follows:

The Frontier Ditch (being a continuation of the Buffalo Canal in Colorado), watering lands in Sections 22, 23, 24 and 25, Township 23 South of Range 43 West; Sections 20, 21, 28 and 30, Township 23 South of Range 42 West, said ditch and lands owned by Harry Crittenden, T. B. Martin, Frank Crittenden, William Snavely, John Tomilson, Charles Woodman, Fred Pomeroy, John Schranstrom, William Rich, David Hess and John Donahue.

The Alamo Canal, owned by the Alamo Irrigating Company, watering lands in Township 24 South of Ranges 39, 40 and 41 West, owned by John E. Frost, J. V. Pratt, W. F. Reed, James Gates, W. J. Martindale, D. A. Monroe, L. C. Price and others.

The Occidental Canal, watering lands in Sections 9, 10 and 11 in Township 24 South of Range 41 West, owned by B. J. Woodley, L. Inge and L. T. Worden.

The Alameda Canal, watering lands in Sections 16, 17 and 18 in Township 24 South of Range 40 West, and Section 12, Township 24 South of Range 41 West, owned by C. F. Roe, E. J. Barber, Ben A. Wood, M. J. Clark, A. L. Huffman, Henry Packer and W. J. Parnell.

The Dodge City Canal and Eureka Canal, watering the land alleged in the amended bill to belong to the State of Kansas and used by it as a Soldiers' Home.

The said Eureka Canal, owned and operated by The Kansas Water Works and Irrigating Company, and watering not only the land belonging to said state as aforesaid, but also several thousand acres of land in Township 26 South of Ranges 21, 22, 23, 24, 25, 26, 27 and 28 West, and Township 27 South of Ranges 21, 22, 23 and 24 West, said lands being owned by persons whose names are unknown to this defendant, the said canal being about ninety miles in length.

Also, at least twenty-five other canals and ditches of an aggregate length exceeding 200 miles, and watering many thousand acres of non-riparian lands in Kansas, and used for manufacturing and other purposes, this defendant not being sufficiently advised as to the names and ownership of the canals and ditches or lands to set the same out in detail.

3. That by an act of Congress, approved March 3, 1863, there was granted to the State of Kansas, for the purpose of aiding in the construction of a railroad from the city of Atchison, by way of Topeka, to the western line of the state in the direction of Fort Union and Santa Fe, New Mexico, every alternate section of land designated by odd numbers, for ten sections in width on each side of said road, and lying in the valley of the Arkansas River, to which the right of homestead, pre-emption or other rights had not attached and which had not been reserved to the United States.

On February 9, 1864, the legislature of Kansas approved an act accepting said grant of land, which comprised many thousand acres in said valley.

On December 19, 1882, the State of Kansas conveyed said lands by patent to The Atchison, Topeka and Santa Fe Railroad Company.

There was no grant of lands to said company in Colorado.

The land department of said company was under the direction of A. S. Johnson, as commissioner, and John E. Frost, as chief clerk.

About 1885 settlement along the line of the road in the Arkansas Valley had reached the west line of Kansas, and the land department of said company considered the matter of stimulating and aiding settlements in Colorado. The land department of said company, together with one I. R. Holmes, then local land agent of the company at Garden City, Kansas, in the interest of said railroad company, investigated the situation in Colorado and caused to be located the town of Lamar, thirty miles from the state line

in Colorado. At that time there were no irrigation ditches in that part of the Arkansas Valley, except one or two small ones constructed by small farmers for private use. Capitalists were invited by said land department to come in, and the Oxford Ditch, the Lamar and La Junta Canal, the Holbrook Canal, the Highline Canal and various other extensive irrigation enterprises, with the assistance of the land department, were pushed to completion. During this time most of the land in Kansas belonging to the company still belonged to it, and it was well known to said company that in the construction and operation of such canals in Colorado, the water of the river would be appropriated as against any rights of the lands then owned as aforesaid by the company in Kansas.

These lands were all thereafter sold by said company to private citizens, and they now constitute nearly or quite one-half of the lands which the plaintiff, by its amended bill, claims the right to protect as against the operations so as aforesaid inaugurated and completed with the assistance of said railroad company, and as to such lands and their claim to the water, and as to the plaintiff and the citizens now owning such lands, there is no equity in said amended bill.

4. That in September, 1891, a convention of irrigators and owners of lands in the arid and semi-arid regions west of the Missouri River was held at the city of Salt Lake, in the then Territory of Utah, said convention being known as the "First Irrigation Congress." Delegates to said convention were sent by the governor of Kansas (most of them being from the

Arkansas Valley), as the representatives of the owners of lands in said valley. Said delegates reported to the members of said convention the circumstances under which the lands in said valley had been taken up and the price paid therefor to the United States; that the United States had received for said lands an amount approximating $6,000,000; that the land had been found to be unfit for cultivation or habitation without irrigation, and the convention was urged by them to demand of the United States that they encourage, promote and assist in the construction of the necessary irrigation works, whereby to obtain water for the irrigation of the lands in said valley; that the platform adopted at said Irrigation Congress, known as the "Salt Lake Platform," was prepared at the request of said delegation from Kansas, representing the views and wishes of all the owners of riparian and non-riparian lands in said valley of the Arkansas River in Kansas, said platform being in part as follows:

> "Whereas, Large areas of arid lands and semi-arid lands situated upon the great plains in the Dakotas, Western Nebraska, Kansas and Oklahoma, were settled upon in good faith by homeseekers, under the supposition that they were obtaining agricultural lands;
>
> "And, Whereas, The settlers upon such lands have expended much time and labor upon the same and paid into the United States treasury therefor many millions of dollars, only to discover that irrigation, to a greater or less extent, is necessary in mak-

ing homes for themselves thereon; therefore, be it

"Resolved, That the representatives of all the states and territories directly concerned in irrigation do hereby pledge their unwavering support to the just demands of such settlers that the general government shall donate at least a portion of the funds received from the sale of such lands toward the procurement of the means necessary for their irrigation."

At said convention reference was made by said delegates from Kansas to the irrigation works constructed at Greeley, Rocky Ford and along the Arkansas River in Colorado, and the same was pointed out as a demonstration of what could be accomplished by irrigation, and it was urged that the like system should, by government aid, be applied in the valley of the Arkansas in Colorado and Kansas, and it was further urged that the United States should make survey of the lands in Kansas to aid those desiring to construct ditches or canals, and to furnish information to all persons wishing to know the lines which might be followed by canals and ditches in said valley.

At subsequent meetings of said Irrigation Congress, held at Los Angeles, Cal., in 1893, and in Denver, Colo., in 1894, delegates representing the owners of lands in and the citizens of said Arkansas Valley in Kansas, were again present, urging the support of said convention in the application of the people of said valley to the United States for aid in the construction of irrigation works. In all of said conven-

tions the demands of the delegates from Kansas were acceded to and the United States was induced to and did make an irrigation or contour survey of the lands in the valley of the Arkansas for the purpose of aiding in the scheme.

5. That if it be true, as alleged by the complainant, that the diversion and appropriation of the water of the Arkansas River for beneficial uses in Colorado causes or tends to cause the injuries to the State of Kansas and certain of its citizens, it is also true that other citizens and residents of Western Kansas owning lands lying west of and above the lands described in the amended bill, have been for many years and still are appropriating such water for beneficial uses to and upon their lands, aforesaid, which are non-riparian, claiming the legal right to do so under the same and similar laws under which this defendant and other citizens of Colorado claim, and adversely to the alleged riparian rights set forth in said amended bill.

That the claims and appropriations of said citizens of Western Kansas of said water are to such extent as to totally exhaust the ordinary flow of the Arkansas River before it would reach the lands belonging to the State of Kansas and the citizens it claims especially to represent, so that any decree which this court might or could render adverse to the defendants would be of no avail or benefit to said State of Kansas or the citizens it claims to represent, unless at the same time all the aforesaid citizens of Western Kansas claiming and appropriating said water for beneficial uses, and especially those corporations and persons hereinbefore named as owners of lands and

ditches in Western Kansas, are also made parties hereto and likewise restrained from such uses, they being necessary parties defendant to this suit. That for the reasons above stated this court has no jurisdiction of the parties now defendant or of the subject-matter of this suit.

6. That the claims to and appropriation of such water for beneficial uses, adverse to the riparian rights alleged in said amended bill, by said citizens and residents of Western Kansas, have been made and carried into effect for many years past, with the full knowedge of said state.

That, notwithstanding such fact and knowledge said state has never instituted any proceeding or sought in any way to prevent or restrain the same, but on the contrary has from time to time authorized, recognized and approved such acts, and the institution of this action is not in good faith by said state.

IV. THE OPERATIONS OF THIS DEFENDANT AND THE INJURY THAT WOULD RESULT TO THE PEOPLE OF COLORADO AND KANSAS IF THE BILL IS SUSTAINED.

1. This defendant, further answering, avers that it now is, and its predecessors in interest have been ever since 1877, engaged in mining coal and iron ore, and manufacturing coke, steel rails, and other steel and iron products, and this defendant has now in operation twenty-seven coal mines, four iron mines, six coal washeries, 3,020 coke ovens, and extensive steel

works, the greater part of which are situated in the counties of Fremont, Pueblo, Huerfano and Las Animas Colorado, and upon the Arkansas River and its tributaries; and are wholly dependent for their operation upon water obtained by reservoirs and ditches, from the drainage area of said river.

That during the fiscal year ending June 30, 1903, the tonnage product of this defendant was as follows:

	Tons.
Coal	5,271,942
Coke	994,752
Steel and iron	968,884

the same having an aggregate value exceeding $17,000,000; the aggregate value of the coal and coke exceeding $9,000,000.

That its pay rolls to employes during said period exceeded $600,000 monthly, and for the year aggregated $8,990,000.

2. That, prior to the year 1877, and ever since, this defendant and its predecessors in interest, in order to provide water for the operations aforesaid, have been engaged in acquiring, by purchase from the owners thereof, water rights on and along the Arkansas River and its tributaries in Colorado, many of such rights having priorities under the laws of the United States and Colorado antedating the year 1860, and this defendant now owns such water rights to an aggregate amount of about 100 cubic feet per second.

3. That prior to the year 1877, and ever since, this defendant and its predecessors in interest have also been engaged in constructing reservoirs within such area for the purpose of collecting and conserv-

ing the flood and surface water of said area as well as the water so purchased as aforesaid, and to be thereafter purchased by them and it.

That prior to or about the year 1877 there was so constructed the defendant's reservoir No. 1, situated near the city of Pueblo in Pueblo county, Colorado, having a storage capacity of 500,000,000 gallons of water.

That in 1900 there was so constructed the defendant's reservoir No. 2, situated in said Pueblo county, having a storage capacity of 500,000,000 gallons of water.

That in 1902 there was so constructed the defendant's reservior No. 3, situated in said Pueblo county, having a storage capacity of 2,700,000,000 gallons of water.

That ever since their construction said reservoirs have been annually filled or partially filled by and through the feeders thereof with the flood water and the other water so acquired from the San Carlos River, a tributary of the Arkansas, and with surface water falling or coming upon the lands of defendant and others adjacent to said reservoirs.

That the water so collected was continuously, during each year, taken into and used in its steel plant for the purposes incident thereto, without unnecessary use or waste, there being consumed or lost by such use less than fifty per cent. of that so taken in, more than fifty per cent. being returned to the stream.

That most of the water so collected in said reservoirs and used and returned as aforesaid, was flood and surface water, collected in early spring at a time

when, if not so collected, conserved and returned, it would, as it formerly did, flow down the Arkansas River in such large volume during short periods that the principal portion of it would be and was of no value or benefit to the plaintiff or anyone it claims to represent, but many times a serious injury to them.

That by reason of such collection, conservation and return of water, and notwithstanding the partial consumption thereof by defendant as aforesaid, the flow of water in the Arkansas River in Kansas was during said time greater in the aggregate, more continuous and more equally distributed throughout each year than before, and the plaintiff and those it claims to represent were in no way injured thereby, but were, in fact, greatly benefited, as were many other citizens of Kansas who were then and still are dependent on the equal flow of water in said river for irrigating their lands in Kansas, and for other purposes.

4. That this defendant has just completed its Sugar Loaf reservoir, situated in Lake county, Colorado, having a storage capacity of 5,600,000,000 gallons of water, and has also partially completed its Purgatory reservoir, situated in Las Animas county, Colorado, to have a storage capacity of 650,000,000 gallons of water, in which reservoirs it also proposes to collect, for use in its steel plant and in its coal mines, washers, coke ovens, etc., and return, as aforesaid, the flood water of the upper Arkansas River and of the Purgatory River, a tributary of the Arkansas, and surface water aforesaid, and which will still further tend to augment and equalize the flow of water in said river in Kansas, and result in no injury, but

to the great and further benefit of the plaintiff and those it claims to represent, as well as to many other citizens of Kansas who are dependent on the increased and equal flow of the water of said river.

5. That said Sugar Loaf reservior was constructed by this defendant under and by virtue of an act of Congress, entitled "An Act to vacate the Sugar Loaf Reservoir Site in Colorado," etc., approved March 2, 1897, which act vacated the government's rights therein, restored it to the public domain and authorized the Secretary of the Interior to sell the same at public auction under such regulations as he might prescribe to secure the early building and permanent maintenance of a reservoir to increase the flow of the Arkansas River, and to supply water for mechanical, manufacturing and other purposes, subject to such control by the State of Colorado as is provided by its laws.

That in pursuance of said act this defendant acquired said site and on or about October 17, 1903, completed said reservoir at an expense exceeding $120,000, and is authorized and entitled to maintain and operate the same as contemplated in said act.

6. That the other reservoirs above referred to were and are to be constructed in accordance with the general laws of the United States and of the State of Colorado, in relation to the construction of reservoirs, and its water rights aforesaid have been adjudicated and confirmed by decrees of court in conformity with the laws of Colorado.

7. That in connection with the purchase of the ditches and water rights aforesaid the defendant also acquired and now owns the lands to which said

ditches and water rights were appurtenant, to an amount exceeding 8,000 acres, all of which adjoin or abut upon the beds of the Arkansas, San Carlos and Purgatory rivers, and were then and are now entitled to all the rights accruing to them as riparian lands, which rights are now owned and entitled to be enjoyed by this defendant.

8. That the water which defendant has at any time taken or used, or now takes or uses, or is proposing to take and use, from the ordinary flow of said streams, does not equal that acquired in connection with the purchase of said lands, and which was appurtenant thereto, and in such use defendant has at no time done more than to exercise its riparian rights as a user of such water. But defendant does not by this plea waive or abandon any right it has under the Constitution and laws of the United States and the State of Colorado, on account of priority of appropriation for beneficial uses.

9. That in the purchase of said ditches, water rights and lands, and the construction of its ditches and reservoirs the defendant has expended about $500,000, and it has invested in its other lands and plants in the drainage area of the Arkansas River about $25,000,000, all of which depend for their operation on the water so collected, taken and used as aforesaid, and if deprived of such water or any considerable portion thereof the value of its investment and property would be effectually destroyed, and this defendant would be thereby irreparably injured, there being no other available water supply therefor.

10. The defendant and its predecessors have also purchased and constructed since 1877 about

twenty miles of ditches, and defendant has now in course of construction about seventy miles of additional ditches within the area aforesaid, all of which are intended to be used in connection with its operations, but which will not tend to decrease the usual and ordinary flow of water in said Arkansas River into or through the State of Kansas.

11. That in its operations aforesaid the defendant employs about 18,000 persons, their families and dependents numbering about 80,000 persons additional, all of whom are at present wholly and directly dependent on such operations for support.

That in addition to the persons so directly employed or depending for support on said employes, the defendant's operations furnish to other auxiliary and dependent industries and to railroads a large amount of business, and thereby indirectly furnish to about 100,000 other persons a large proportion of their present employment and support.

That of the employes and other persons so directly and indirectly dependent on its operations more than fifty per cent. reside on and along the Arkansas River and its tributaries, and within the drainage area of said river.

12. That at its various mines and plants, situated in the drainage area of the Arkansas River, flourishing towns of greater or less size have grown up, which are wholly dependent for their present and future existence on the continuation of said operations at such points, said towns having an aggregate population of about 22,000 persons.

That the inhabitants of most of these towns are also wholly and directly dependent for their water for

domestic purposes, fire protection, etc., on the water supply furnished to them by this defendant from its general water supply.

13. This defendant also has in course of construction extensive additions to its steel and other plants, which when completed will increase the number of its employes about 1,000, and the number of persons dependent on them for support in proportion.

14. That the resident population of the drainage area of the Arkansas River in Colorado exceeds 175,000.

That the assessed value of property in said area is as follows:

Farms and grazing lands	$10,000,000
Live stock	8,000,000
Miscellaneous	18,000,000
Total	$36,000,000

The actual value is about twice the above. Many of these residents are either directly or indirectly dependent on the operations of this defendant as aforesaid, while the balance of them are either farmers having large and extensive farms in a high state of cultivation, or stock growers, or engaged in other occupations, all depending, directly or indirectly, for their existence and prosperity upon the continuance of the right to appropriate and use the water of such area for agricultural, mining, manufacturing and domestic purposes.

15. That in the event that this defendant and the residents of the drainage area of the Arkansas River in Colorado should be deprived of their right to

so use such water, almost the entire drainage area of said river would become a desert and of little value, as it was prior to its settlement and improvement aforesaid, resulting in irreparable and incalculable injury and damage to the people so immediately concerned as well as to the State of Colorado.

16. That substantially all the fuel used in Western Kansas by beet sugar factories, flour mills and other industries, and for domestic purposes, is coal mined in Colorado, and within the drainage area of the Arkansas River, and a very large proportion of it is mined by this defendant from lands owned by it, which comprise the principal available supply of coal within that area.

That in the winter time the demand and necessity for coal from Colorado, especially for domestic purposes, in the treeless region of Kansas, is very great, and it is often very difficult to supply it to a sufficient extent to prevent suffering.

That during the fiscal year aforesaid this defendant's shipments of coal into Kansas for consumption by its beet sugar factories, flour mill and other industries, and for domestic use, was as follows:

	TONS.
To points west of Hutchinson	150,000
To points east of Hutchinson	75,000
Total	225,000

the same having an aggregate value at points of delivery of $1,350,000.

That in producing steel, coal and coke a considerable and constant supply of water is required for

power, domestic and other purposes, and the continuance of such production within the drainage area aforesaid is wholly dependent on the use of water from such drainage area.

17. That this defendant also owns the principal available supply, and furnishes a large proportion of the coal and coke used by the smelters and other large industries of Colorado, Nebraska, Idaho, Wyoming, Montana, Utah and New Mexico, and to some extent that so used in other states adjacent thereto.

That in addition to the fuel supplies furnished to industrial plants and for domestic use in the states aforesaid, it furnishes a large amount of steel and fuel to the various railroad systems within said states.

18. That the cutting off of such fuel supplies furnished by this defendant, or any considerable portion thereof, would result in the shutting down of, or material injury to, most of such industries and cause distress among the inhabitants, to the great and irreparable injury of the citizens of all said states, as well as those of Western Kansas.

19. This defendant avers that in its operations aforesaid it is a user rather than a consumer of water, returning to the streams a large percentage of the water originally taken out by it, and that at no time, nor in any manner, have its operations aforesaid injured the State of Kansas nor any citizen thereof, nor deprived them or any of them of their rights, directly or indirectly, nor will they do so in the future.

V. WAIVER, ESTOPPEL, LACHES AND THE STATUTES OF LIMITATION.

1. This defendant further avers that it, its grantors and predecessors in interest, acquired the property, water and water rights, made all the improvements hereinbefore referred to in good faith, and relying on the laws, customs and usages of the United States, of the State of Colorado, and of the State of Kansas, in relation to the appropriation and use of water for agricultural, mining, manufacturing and domestic purposes, and on the waiver and surrender by said State of Kansas and all other owners of lands along said Arkansas River of all riparian rights inconsistent therewith, as hereinbefore more fully set forth.

2. That the State of Kansas and those whom it claims to represent had also full knowledge of the operations of this defendant and of the other appropriators of water in Colorado and Kansas hereinbefore set forth as the same occurred; and of the effect of the same, whatever it may have been, upon the flow of water in said Arkansas River, but made no objection to or protest against any of the operations hereinbefore referred to, but acquiesced therein and appropriated and enjoyed the benefits accruing to them therefrom and recognized that priority of appropriation of the water of the Arkansas River gave priority of right, regardless of riparian ownership, and the said State of Kansas, and the citizens it claims to represent, are guilty of laches, and have no right to maintain this suit as against this defendant.

3. That the State of Kansas is not, as the owner or the representative of the owners of lands in said Arkansas Valley in Kansas, entitled to the relief sought in said amended bill of complaint against this defendant, because, by the acts, doings and conduct of said State of Kansas and of the owners of lands in said valley as hereinbefore set forth, and by the delay of said state in filing its said bill, and by the failure of the owners of lands in said valley to assert the rights claimed in their behalf by said state, this defendant, and the other appropriators aforesaid, have been induced to make their large investments in reliance thereon, and said State of Kansas, and the citizens it claims to represent, are, in equity and good conscience, estopped from now claiming any relief which would impair or destroy the value of the same.

4. That the principal acts performed by defendant and its predecessors, and its and their original appropriation and use of water from the Arkansas River and its tributaries, of which plaintiff complains, occurred prior to the year 1895, and the right of action on the part of said state or those whom it claims to represent, if any such rights they have on account thereof, accrued more than six years prior to the filing of the amended bill, and this suit as to such acts and appropriation is barred by the statute of limitations of the State of Colorado.

5. That the principal acts performed by defendant and its predecessors, and its and their original appropriation and use of water from the Arkansas River and its tributaries, of which plaintff complains, occurred prior to the year 1888, and the right of action on the part of said state or those whom it claims

to represent, if any such right they have on account thereof, accrued more than fifteen years prior to the filing of the amended bill, and this suit as to such acts and appropriation is barred by the statute of limitations of the State of Kansas.

6. The defendant further avers that by its long continued appropriation and use of said waters, as aforesaid, and the acquiescence and conduct of the State of Kansas and its citizens, it has acquired a prescriptive right thereto to the full extent of its appropriation and use thereof.

This defendant, now having fully answered all the allegations in the plaintiff's amended bill of complaint, or so much thereof as the defendant is advised should be answered, asks to be hence dismissed with costs and charges in this behalf sustained.

DAVID C. BEAMAN,
Solicitor for The Colorado Fuel and Iron Company.

CASS E. HERRINGTON,
FRED HERRINGTON,
E. PARMALEE PRENTICE,
Of Counsel.